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Georgia Baby Book



GEORGIA DEPARTMENT OF PUBLIC HEALTH
Atlanta, Georgia

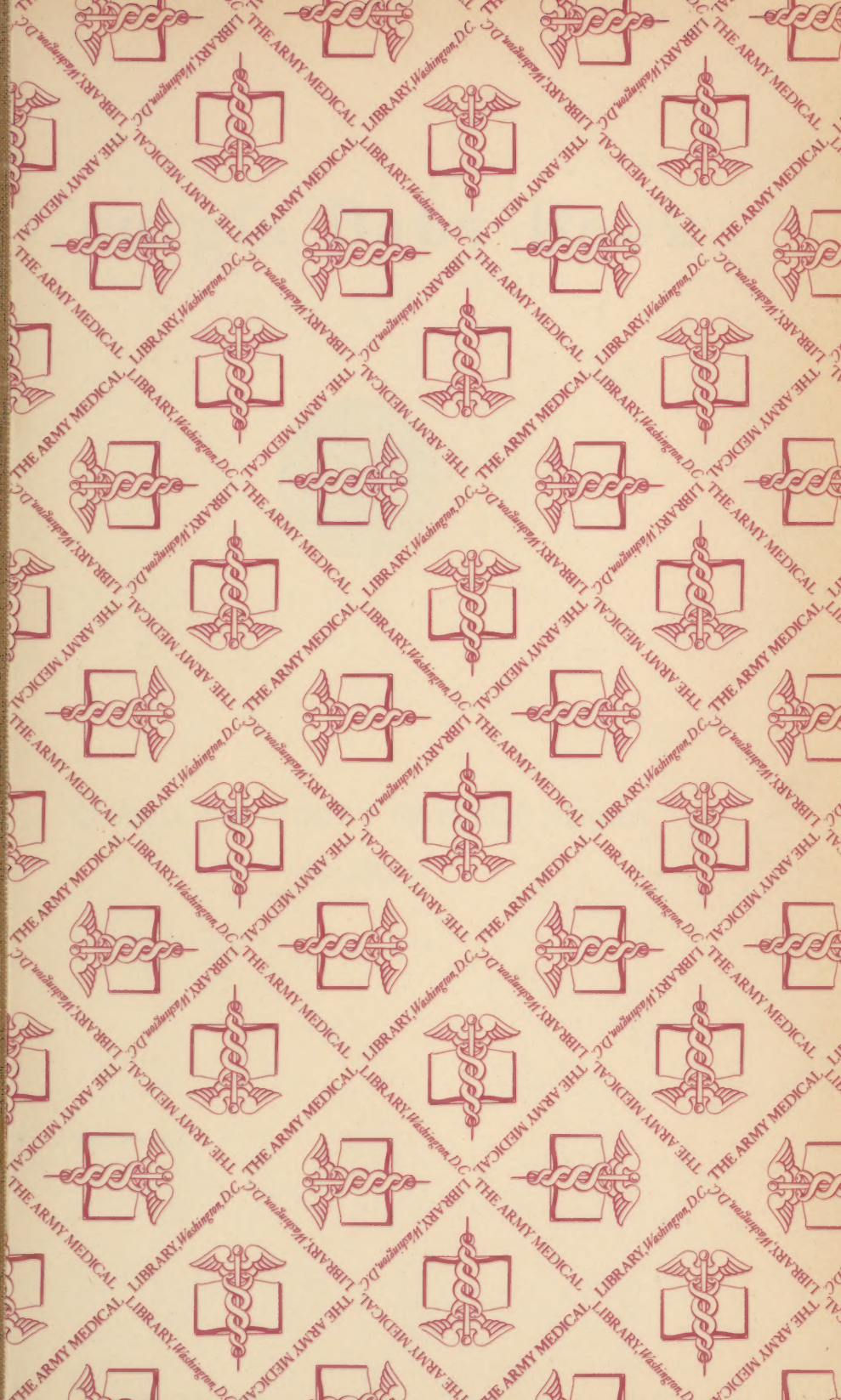
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Georgia Baby Book



GEORGIA DEPARTMENT OF PUBLIC HEALTH

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Eighth Edition—50M

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FOREWORD

It is with pleasure that the eighth edition of the Georgia Baby Book is presented to the mothers of this State. The book has been revised with care.

Much credit is due those who have contributed to this edition; the list is too long for publication and some have requested that their names not be mentioned. Leading physicians have been consulted. The Committee of the Georgia Pediatric Society has generously contributed new ideas. Health officers and nurses have offered practical suggestions.

The baby who has the constant supervision of a physician will be a stronger, healthier baby. While this book cannot and should not take the place of a physician's care, its use will prove of practical value to Georgia mothers.

T. F. ABERCROMBIE, *Director,*
Georgia Department of Public Health

G-5N56

The Child's Bill of Rights

THE ideal to which we should strive is that there shall be no child in America:

That has not been born under proper conditions

That does not live in hygienic surroundings

That ever suffers from undernourishment

That does not have prompt and efficient medical attention and inspection

That does not receive primary instruction in the elements of hygiene and good health

That has not the complete birthright of a sound mind in a sound body

That has not the encouragement to express in fullest measure the spirit within which is the final endowment of every human being.

REGISTER YOUR BABY'S BIRTH



Every baby born in Georgia should have a birth certificate properly recorded. It is the duty of every parent to see that their baby has a birth certificate on file in the Georgia Department of Public Health. This record should be filed within ten days after the birth occurred by the attendant with the local registrar of the militia district in which the child was born.

Changing social and economic conditions have greatly increased the need for such a record. All through life your baby will be called upon to produce his or her birth certificate and will be caused much inconvenience if such a record cannot be produced. Some of the uses for these records are to prove age to enter school, 4-H Club contests, to play American Legion baseball, to obtain their first job, to obtain aid in case they are orphaned, to obtain a driver's license, a marriage license, to vote, to enter military service, civil service, to prove age for retirement, to collect old age assistance, and to prove citizenship.

If you are in doubt as to whether your baby has been registered, write to the Georgia Department of Public Health giving the date, place of birth, the father's full name and you will be notified as to whether or not the birth is on record.

On the opposite page is a facsimile of a correctly completed certificate of birth.

DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS

CERTIFICATE OF BIRTH
GEORGIA DEPARTMENT OF PUBLIC HEALTH

State File No. _____

Register's No. _____

1. Place of Birth _____

(a) County Appling Milledge Dist. No. 433

(b) Town Bayley

(c) Name of Hosp. _____
(If Outside City or Town Limit, Write Rural)

(d) Name of Si. Address _____

2. Usual Residence of Mother:

(a) State Georgia (b) County Appling

(c) City or Town Bayley

(d) House No. & St. _____
(If Outside City or Town Limit, Write Rural)

(e) at H.R.D. & B.S. Route # 21

Hour of Birth 4:15 A.M.

In This Community 3 year

Length of Mother's _____
(d) Six Before Delivery: In Hosp. _____

3. Full Name of Child Mary Frances Doe

5. Sex Female 6. Date of Birth January 2 1941

7. Full Term Pregnancy _____ 8. To Father of this Child? Yes

9. Name of Child Sarah Ann Roe

10. Color White 11. Age of Time of Birth 23

12. Birth Place of Father Columbia S. C.

13. Usual Occupation Housewife

14. Industry or Business Own Home 15. Social Security No. _____

16. Was This Child _____ 17. Total No. of Children _____
23. Born Alive? Yes 24. Born to This Mother 2

25. Signature L. B. Jones Date of Supplemental Report _____

26. Date Filed Jan 3 1941

27. Give Complications of Preg. or Labor _____

28. Was This an Operative Delivery? _____

29. Was There a Birth Injury? Describe _____

30. Congenital Deformity? _____

31. Was 1% Silver Nitrate Solution Used in This Child's Eyes? Yes

32. Attendant's Own Signature Thomas J. Smith Date Signed _____

33. P. O. Address Bayley, Ga Jan 2, 1941

WHAT TO OBSERVE IN A BABY



Until children acquire the ability to talk, it is advisable for the mother to look for any signs or movements that indicate discomfort. If the mother will acquaint herself with the following information it will be much easier to detect when the baby is uncomfortable or ill.

Well Baby—A healthy child should gain regularly in weight each week. Should have warm, moist skin, breathe quietly, eat heartily, sleep peacefully, have from one to four daily bowel movements, and cry when hungry, uncomfortable, ill, or when desiring more attention.

Posture When Sleeping—Quiet, limbs relaxed, sleep peaceful, no excess tossing about, but should be changed from side to side occasionally.

Facial Expression—A healthy baby is calm and peaceful. If for any reason the mother suspects that the baby's facial expression is unusual, a physician should be consulted because in all instances there is an explanation. Frequently by the facial expression is the earliest sign of some disturbance.

Breathing—Regular, easy and quiet. However, during the first weeks of life breathing may be irregular in normal babies. This should cause no alarm unless associated with other abnormal conditions, such as hot skin and flushed face. Baby should breathe through the nose and keep the mouth closed. Mouth breathing or habitually holding the mouth open usually indicates enlarged tonsils or adenoids or some other obstruction to the breathing which needs the attention of a physician.

Skin—Warm, slightly moist and of a healthy pink color. The skin should be soft and smooth to the touch and the underlying muscles firm.

Flabby muscles may indicate improper feeding or some other abnormal condition.

Crying—Babies need a certain amount of crying to develop their lungs. When children cry for everything they want, it is the result of faulty training. If baby is cross or fretful, or cries a great deal of the time, it may mean he is ill, or that he desires more attention. If you are certain the child is not ill, and is not uncomfortable, do not allow the cry to disturb you. If crying ceases immediately when the baby is held in arms, the chances are that he merely wants to be held. For good training, the child should be placed in his crib immediately, for it is at this time the baby learns to obtain more attention than is desirable.



Hunger Cry—A low, whimpering cry sometimes accompanied by sucking of the fingers or the lips. If the meal is not forthcoming it may change to a lusty scream. Babies cry from indigestion caused by overfeeding and from hunger.

Fretful Cry—The baby is sleepy or uncomfortable. He may be too warm or tired of being laid in one position. He may be soiled. A tepid sponge bath and gentle rub or change of clothing and taking him up will prove very restful and comforting. If the crying continues, consult the doctor. The baby may be ill.

It is a mistake to think that the strain of crying will cause the male baby to rupture. This mistake often makes mothers and nurses give the baby his own way and all that is accomplished is a spoiled, exacting and fretful baby.

Cry of Colic or Pain—A lusty cry sometimes rising to a shriek, with tears in the eyes might indicate colic or abdominal pain; usually the knees are drawn up and the fists are clenched. If the crying increases with moving of an arm or leg or when placing the child in a certain position, he may have an abnormality calling for the attention of a doctor. Never give a purgative unless directed to do so by your physician.

The pain of earache is often mistaken for colic. This terrific pain causes more or less continuous and prolonged attacks of crying and screaming and is usually accompanied by rolling the head about, or boring one side of the head into the pillow, or pressing the ear, or placing the hand against the ear. All serious cases are accompanied by fever. Call your physician.

Sick Cry—The very sick baby does not cry hard. There is a low moaning or a wail, with sometimes a turning of the head from side to side. This is always a serious sign, so see your physician.

Sick Baby—Learn to recognize any change from the normal. Unusual flushing or pallor of the face, sleeplessness, lack of energy, loss of appetite, profuse sweating, especially of the head, peevishness, vomiting or diarrhea, give warning that something is wrong. Find out what and why before administering any medicine.



NURSE-MAID



One of the important arrangements for the welfare of the baby is the selection of the proper individual to care for the baby.

The one who comes in contact with the baby should be free of disease. She should be physically in good condition and have a complete examination, especially for tuberculosis, syphilis, gonorrhea, and in fact all infectious conditions, including examination of the skin for parasites.

Almost, if not as great importance should be attached to the personal character of the individual. She should be quiet, have poise, neat in her habits, happy in disposition, possess keen common sense, spiritual fiber, and should be sufficiently intelligent to properly carry out the orders of the physician and parents. Plain and complete instructions in regard to the daily care of the child should be given the nurse-maid by the mother or father.

The nurse should not administer punishment to the child. All conditions that arise for which the child should be punished should be referred to the parents of the child.

Habits are formed early. Impressions made on the child, even in infancy, go with it through life. So much, therefore, depends upon those who have intimate contact with the child in its formative period. So much depends on early impressions that are fundamental in habit formation. If bad habits or improper speech develop in the child, the mother should immediately determine whether or not the maid's actions and speech are at fault.

Modern preventive medicine has put its scientific finger upon these very things and has amply demonstrated that the child's body, mind and spirit are dependent upon such factors for normal growth and development. Child hygiene, mental and physical, frequently begins with the nurse.

The parents of the child should have constant contact with the baby, and the daily life of the child should not be left entirely to the nurse-maid.

Instructions as to where the child should visit should be given the nurse-maid.

HOW TO HANDLE A BABY



A baby must always be handled carefully. His bones are still part cartilage and they bend or break easily. After feeding the baby, place him in his crib. Jolting, bouncing or rocking may cause the child to vomit. If this attention is given regularly, it may cause the child to want it after each feeding. Always handle the baby evenly and slowly, never hastily or jerkily.

A young baby cannot turn himself over. His muscles get very tired if they remain too long in one position. When he is taken up for feeding or cleansing, his position should be changed from side to side, or from lying on his back to lying on his stomach. But always the head and back must be kept straight and the arms and legs free. The ears should be kept straight and flat on the head. The eyes should be protected from direct light.

To hold a young baby on one arm lay him flat on his back on your left arm, supporting the neck and head with the palm of the hand and fingers, and pressing his body close to your body with the left elbow.

A baby should never be encouraged to try to hold up his own head or to sit up. The spine, neck and head always should be supported. Do not use "walkers". A good plan is to place the baby on the floor on a clean blanket and let him find himself. Do not restrain or encourage him to sit up, stand, or walk.

Never pick a child up by the arm. Grasp him firmly by the shoulders or body. In walking with an older child do not walk too fast nor compel him to reach up to take your hand. It is very tiring to walk in that position.



DEVELOPMENT OF A BABY



At birth, a baby's head is larger in proportion to his body than is an adult's. The abdomen is big. The arms and legs are short and the legs are slightly bowed.

It should be remembered that babies are individuals, therefore, no fixed standard of development can be made. Some babies may not develop up to an average, yet will be normal. If you are in doubt about your child's develop-

ment, discuss the matter with your physician.

As improper feeding is the chief cause of a child's failing to develop properly, too close attention cannot be paid to the right feeding of a young baby.

Soon after birth, a baby develops sense of contact and temperature; that is, he knows when he is being held and he can appreciate heat or cold. He learns to see light and to hear during the first three or four days; however, the sense of sight and the sense of hearing are not fully developed for several weeks.

The first month the hands move aimlessly about. During the second month, he learns to put his hand to his mouth and tries to lift his head.

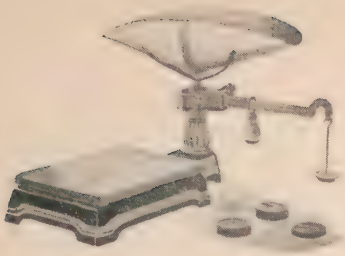
During the third and fourth months, a baby will make an effort to grasp what is held before him and will try to sit up. He should not be allowed to do so unless he is supported. About this time, he begins to recognize others and develops a will of his own, which is expressed in crying when he is displeased. He will coo when he is happy.

About the sixth month a baby can sit alone for a few minutes. He will grasp and hold whatever comes within reach of his busy fingers. He now begins to be sociable and will try to talk, sometimes making vowel sounds.

From the seventh month to the ninth month, he will creep and will make efforts to stand. He likes to imitate movements and to have sympathy and attention shown him.

From the ninth month to the twelfth month, he learns to stand and from the twelfth to the sixteenth month learns to walk. He develops a sense of desire to please and this leads to obedience. Sometimes at the twelfth month he can say a few words.

A baby has no moral sense or knowledge of what is right or wrong. He simply follows his instincts. An older person must keep him from harm and show him gently how to do the right things until he learns for himself.



The loss of a pound or two of weight makes very little difference to the adult but it is a serious matter for a young baby. A pound or two of loss means as much to the baby as ten or fifteen pounds does to the adult.

You should keep up with your baby's physical development. You should know if defects are developing and give prompt attention to

their correction. Take the baby to your physician for a complete examination once each month during the first year of life and at least twice each year after this until school age.

If a baby fails to gain in weight consistently for several weeks, or loses a pound or two, consult your physician. The average daily gain in weight for the first year is so small that it cannot be detected without weighing.

When a baby fails to gain it means that there is something wrong with him or the food. *Whatever it is, it should be remedied at once.* To delay until baby has lost weight for several weeks, or until the loss of weight reaches a pound or two always lessens the baby's chances for prompt recovery.

It is very much easier to keep a young baby well and gaining steadily than it is to have him regain lost weight, or to get him well again once he has become ill. For these reasons a mother should weigh the young baby every week until he is nine months old and after that at least every two weeks until he is one year old. From infancy until he enters school the child should be weighed at least once a month. Do not neglect a child during the runabout or pre-school age.

The average weight of a baby at birth is 7 pounds. During the first week after birth there is usually no gain in weight, and there may be a slight loss. Consult table of weight. (Page 92)

Keep a written record. Do not depend on memory.

THE BABY'S DAILY PROGRAM



A delicate piece of machinery must have regular, systematic care, if it is to remain in order and do its work properly. Just so with a baby. His body is one of the most sensitive pieces of mechanism known, and regular systematic care is necessary if he is to grow and develop properly.

A baby must not only have the right kind of meals, but the meals must be *on time* and at the *same time every day*.

A baby must have regular hours for sleep, and he must be put to bed *on time* and at the *same time every day*. All babies should have two long rest and sleep periods during the day, one in the morning and one in the afternoon. They should have an early bed time, never later than 6:30 to 7:00 P. M.

The baby's bath, outing, play time, nap, going to stool, in fact everything that is necessary to a baby's care should be done with the *same care, precision and regularity* that is used in caring for any delicate machine.

Sun baths should have a regular place in the baby's schedule when weather permits. (See pages 32, 47, 57, 61)

Regularity in baby's care will establish good habits. Good habits will be a benefit to him through life. The first years of a child's life are, for these reasons, the most important. If he has the right sort of care *then* and is trained in the right sort of habits from the very first day of his life he will grow and develop properly. He will be a happy baby and therefore a good baby, for he has no reason to be otherwise. Systematic living can be learned early.

On the other hand, careless and irregular feeding, keeping baby awake at all hours, waking him to show to the neighbors, or taking him out when he ought to be in bed, will upset habits that are essential to his health and development, not only during childhood but through life.

A child who has been trained to habits of regularity, to obedience and self-control is much easier taken care of when ill, and these habits assist in the recovery. The purpose of such habits is to prevent illness and promote normal growth.

FEEDING DURING THE FIRST YEAR

BREAST FEEDING

Breast milk contains the food elements in the proper proportions. It is cheaper, cleaner, and of the proper temperature. Bottle fed babies have a higher death rate than breast fed babies. Therefore, *nurse your baby if possible*. There is no formula that is equal to breast milk, and it is the mother's responsibility to give her child this advantage.

When the breast milk is not sufficient, consult your doctor. The doctor can frequently give instructions that will increase the flow of milk and make it agree with the baby.

Do not wean your baby until it is nine months of age.

When nature allows a mother to have a healthy baby, she usually furnishes ample breast milk to nourish her offspring. Breast milk is nature's food, and is more digestible for the baby than cow's milk or manufactured foods.

A baby under three or four months should be breast fed exclusively, unless the doctor orders otherwise. If the baby fails to gain a doctor should be consulted. He will probably wish to prescribe a supplementary feeding to suit the baby's age and digestion to be given after his breast feeding.

Water—Boil a pint of water every morning and put in a clean bottle or jar. Keep in a cool place. Offer the baby plenty of water between feedings, beginning with one-half ounce (one tablespoonful) during the first few days after birth. The quantity should be gradually increased until the infant is taking what he desires.

From Birth to Three Months—Nurse the baby when he awakens at 6, 9, and 12 A. M., 3 and 6 P. M., and when he awakens at night, but not over twice. If the baby is developing rapidly and is overweight, then a four-hour schedule is advisable.

Orange or tomato juice should be begun at 6 to 8 weeks, starting with 1 teaspoonful strained and diluted with water. Gradually increase the amount until by the third month and thereafter 2 tablespoonfuls are given twice a day. Orange juice may be diluted with an equal amount of cool boiled water.

Give cod liver oil both summer and winter. Dosage varies with product. For cod liver oil begin with $\frac{1}{2}$ teaspoonful at one month, and increase to two teaspoonfuls daily by the end of the second month. Concentrated oils vary to a great extent, and the dosage should be prescribed by a physician.



Three Months—Many babies at this age do well on a 4-hour schedule. Other babies are not satisfied on the 4-hour schedule but demand a continuation of the 3-hour schedule for a month or so longer.

From Four to Six Months—Breast feeding, or artificial feeding at intervals: 6 and 10 A. M., and 2, 6, and 10 P. M.

A few teaspoonfuls of well cooked cereal, cooked 2 hours in a double boiler, or grits, rice, or oatmeal cooked 4 hours and strained, may be served with a sprinkle of salt just before the 10 A. M. and the 6 P. M. breast feeding. There are several pre-cooked cereals on the market that are satisfactory. The cow's milk feeding should be substituted for a second or third nursing if baby fails to gain $\frac{1}{4}$ to $\frac{1}{2}$ pound in weight per week.

The broth from vegetables cooked in water and seasoned to taste with the 2 P. M. feeding. Start with 1 or 2 teaspoonfuls and slowly increase to 2 or 3 ounces. The pulp may be gradually added to the broth by mashing through a fine sieve. There are a number of commercial canned vegetables on the market satisfactory for infants and children. Some physicians begin feeding eggs at this age period. Consult your physician.

From Six to Twelve Months—It is exceptional for a mother to successfully nurse her baby from 9 to 12 months. Failure of the baby to gain steadily in weight should cause the mother to determine if the baby is getting sufficient breast milk. Frequently at this age it is necessary to add a formula to the baby's diet. This, however, should be done only under the physician's instruction.

The baby should be given:

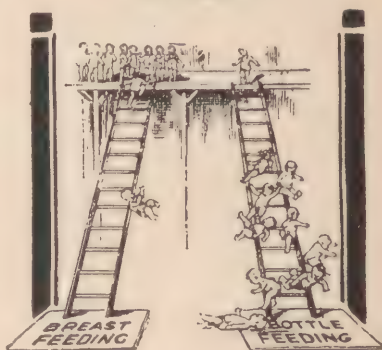
6 A. M.—Toast, after nursing or artificial feeding.

9 A. M.—4 tablespoonfuls orange, pineapple, lemon, or tomato juice.

10 A. M.—One to three tablespoonfuls cereal, according to age; boiled cow's milk, or breast.

2 P. M.—Broth thickened with rice, or $\frac{1}{4}$ cup vegetable soup (vegetables mashed thoroughly); 1 teaspoonful stewed fruit (strained); toast.

Give Your Baby a Fair Chance





6 P. M.—One to three tablespoonfuls cereal, according to age; milk; stewed fruit if constipated; breast.

10 P. M.—Breast if baby awakens.

At Twelve Months—The baby is usually weaned from the breast. At 12 months he is taking whole milk from the cup, and the following diet:

6 A. M.—One cup milk; toast. (Bread should be one day old.)

9 A. M.—Orange or tomato juice, scraped apple, or strained banana thoroughly ripe. (A ripe banana is one that is sound and not bruised. The skin of the banana should be yellow in color, with brown spots scattered over its surface.)

10 A. M.—Two to three tablespoonfuls cereal; $\frac{1}{2}$ egg yolk; 1 cup milk.

2 P. M.—One-half cup vegetable soup or milk.

Vegetables: strained fresh vegetables, 2 teaspoonfuls baked potato, sweet or Irish, with $\frac{1}{4}$ teaspoonful butter.

Egg: one yolk.

6 P. M.—Two teaspoonfuls cereal; 1 cup milk; stewed fruit; toast. All milk should be boiled three minutes and cooled quickly.

On application, feeding cards are available and will be sent without charge.

WEANING THE BABY

If the mother can secure milk for the baby, breast feeding should not be continued beyond the tenth month.

Increase in the baby's diet must be made gradually and with caution, especially during the summer. It is better to keep the baby on a moderately low diet than to upset his digestion by over-feeding. In hot weather give more fluid and less food.

Cow's milk may contain too much cream and this may cause digestive disturbances. It may be necessary for the physician to advise the removal of part of the cream. All cow's milk should be boiled three minutes, even though it has been pasteurized. Boiling guarantees the safety of the milk from the presence of disease germs and makes it more digestible.

Nothing except boiled drinking water should be given between feeding schedules.

Mother should keep in mind that babies and young children should acquire a taste for foods at an early age so that they will not refuse these foods when they are older.

CARE OF THE MOTHER

It is the mother's duty to nurse her baby if possible. There are very few mothers whose breasts will not give milk if they will encourage the baby to suck, and thus stimulate the breast to secrete milk.

Sometimes when the mother suffers from weariness or from feeble health or worry, the milk supply will not be sufficient for the baby.



The mother may conclude that the baby will starve and give up nursing it. This is a great mistake, for modified cow's milk may be given to baby, after mother has nursed the baby ten minutes on each breast, and eventually the breast milk will be sufficiently abundant. As the mother obtains rest she will grow stronger and will find the milk coming in sufficient quantity. When the quantity or quality of the milk

is insufficient, and there is no opportunity to improve the breast output, the baby should, of course, be weaned on the advice of the doctor.

The nursing mother needs plenty of fresh air and some exercise in the open each day, preferably walking or light gardening. The ordinary household duties may be performed but the nursing mother must not be overworked. She should take a nap each afternoon, or at least lie down and rest in a cool room.

The nursing mother cannot afford to have a "spell of nerves". Anger, worry, grief, excitement all interfere with the nervous system and its control over the circulation of the blood, which affects the supply and the quality of the milk. The nursing mother needs to keep herself well. A nursing mother should be relieved of the responsibility of caring for the baby several hours daily.

She should weigh each week and so regulate her diet and exercise that undue gain in weight is avoided.

Diet—The diet for a nursing mother needs to be appetizing, nutritious and laxative. As a rule, she may follow her choice of food, avoiding foods which she has learned disturb her digestion.

If the milk is scanty, a more generous diet is indicated. Take more fresh milk, eggs, fresh vegetables, ripe fruit, nourishing liquid food and drink plenty of water, avoiding tea and coffee except in moderation and all alcoholic preparations or patent medicines. Never force food to point of indigestion to make milk. It is usually better to eat and lead a normal life with the accustomed diet.

Constipation should be guarded against. Fresh fruits are laxative. So are bran biscuits or bran added to the whole wheat flour. Whole wheat bread is more nourishing than white bread and does not constipate. A glass of hot water the first thing on arising in the morning has a beneficial action on the bowels.

The following diet is recommended for mothers:

Milk—one quart taken in some form each day.

All kinds of soups.

All kinds of fresh fish, boiled or broiled, salmon canned.

Meats, once a day—beef, mutton, lamb, veal, ham, bacon, chicken or turkey. Avoid fried meats.

Eggs—one or two each day.

All cooked cereals with milk and cream.

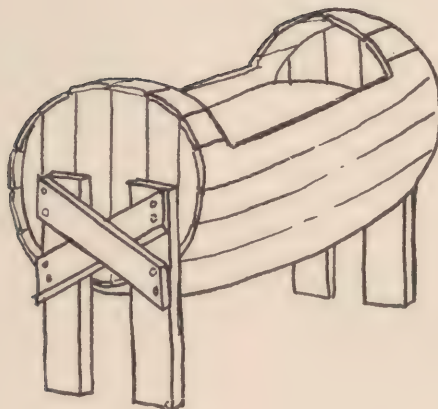
All green vegetables—peas, string beans, asparagus, cauliflower, turnip greens, cabbage, collards, spinach, white and sweet potatoes, celery, lettuce and other plain salads with oil.

Desserts of plain custard or pudding, ice cream; no pastry.

Fruits should be taken freely; all ripe raw fruits and cooked fruits.

Beverages—Plenty of water, one or two quarts daily; tea and coffee sparingly, and not strong, once a day. No alcoholic drinks.

Tobacco in all forms, including snuff, should be limited, or omitted entirely, during pregnancy and the nursing period.



EXPRESSION OF BREAST MILK

It is sometimes necessary to draw the milk from the breast artificially due to the fact that the baby is not strong enough to nurse; the nipples may be under-developed or fissured making nursing difficult for the baby and painful for the mother. If milk is to be expressed from the breast the following procedure should be used.

Scrub the hands and nails with soap, warm water, and a nail brush for at least one full minute or until they are clean. Wash the nipple with fresh absorbent cotton and boiled water or a freshly made boric solution (1 teaspoon boric acid to 1 pint boiled water). Dry the hands thoroughly on a clean towel and



keep them dry. Have a sterilized graduated glass tumbler or large mouth bottle to receive the milk.

1. Grasp the breast gently but firmly between the thumb placed in front and the fingers on the



under surface of the breast. The thumb in front and the first finger beneath should rest just outside of the colored area of the breast.

2. With the thumb a downward pressing motion is made on the front against the fingers on the back of the breast, and the thumb in front and fingers behind are carried downward to the base of the nipple.

3. This second act should end with a slight forward pull with gentle pressure at the back of the





nipple which causes the milk to flow out.

The combination of these three movements may be described as "Back-down-out".

It is not necessary to touch the nipple.

This act can be repeated 30 to 60 times a minute after some practice.

Both breasts may be emptied if necessary or they may be used alternately.

The milk should be covered at once by a sterile cloth held in place by a rubber band and kept on ice until used.



ARTIFICIAL FEEDING FOR NORMAL HEALTHY BABIES



Physician—Feeding a baby on a bottle is a difficult thing to do successfully. For that reason a baby fed on a bottle needs to be under the supervision of a physician.

Weight—The regular increase in weight determined by weekly weighing is the best indication that baby's food is not only agreeing with him and satisfying his hunger, but that it is also meeting his growth requirements.

Milk—For babies living in our climate special caution is necessary not to feed with milk that is too rich. It is better to begin feeding a bottle baby with skimmed milk or milk from which the cream has been partially removed than it is to risk upsetting the baby's digestion with whole milk. Discuss this with your physician.

Water—Boil a pint of water every morning and put in a clean bottle. Keep in a cool place. Give the baby about six ounces (approximately $\frac{3}{4}$ of a measuring cup) a day. Never force the baby to take water but offer it at frequent intervals.

Average Increase in Diet—The milk as in sample formula may be increased by one-half ounce to one ounce every third day if baby is hungry and digests it. The water may be decreased with same quantity as the milk is increased. The milk sugar or corn syrup may be increased by one level teaspoonful every other day until three level tablespoonfuls are given in the twenty-four hour quantity, provided the baby digests it.

GENERAL FORMULAS

General formulas such as have been given must of necessity be written for the average baby and may not be entirely satisfactory for your baby. It is best to consult a physician when artificial feeding is necessary.

A new-born baby needs very little food for the first day or two. The first feeding should be made of one ounce of milk to three ounces of boiled water and no sugar. No food substance other than cool boiled water may be given except by the direction of the physician. All formulas should be given near body temperature.

After the first day, a weak baby is fed at 3-hour intervals during the day and twice during the night, at 10 P. M. and 2 A. M., provided he awakens.

At one week, the average child requires 15 ounces (2 cups) of



diluted milk daily. To 5 ounces ($\frac{5}{8}$ cup) of milk add 10 ounces of water and $1\frac{1}{2}$ tablespoonfuls of milk sugar. This total quantity is given at 7 feedings at 3-hour intervals during the day and two feedings at night.

At three months, the child will require about 32 ounces (4 cups) of diluted milk daily. To 16 ounces of milk add 16 ounces of water and three level tablespoonfuls of corn syrup. This is given in 6 feedings at 3-hour intervals during the day and one feeding at night if the baby awakens. The 2 A. M. feeding is discontinued if possible at the third or fourth month. Give one teaspoonful, slowly increasing the amount to one tablespoonful, of orange juice or diluted strained tomato juice once a day. Beginning at the fourth week give $\frac{1}{4}$ teaspoonful pure cod liver or halibut liver oil after one of the morning feedings increasing the amount gradually to 1 teaspoonful. These oils are not given during the hot weather if bowels are loose, or if the baby spits his food. (See pages 13, 21, 24, 32, 57.)

At six months, the average baby will require 40 ounces (5 cups) of diluted milk. To 26 ounces ($3\frac{1}{4}$ cups) of milk add 14 ounces ($1\frac{3}{4}$ cups) of water and 3 level tablespoonfuls of milk sugar or corn syrup. This is given in 5 feedings during the day at four-hour intervals, 6 and 10 A. M., and 2, 6, and 10 P. M., the night feeding being discontinued. At six months of age the bottle fed baby should have from one to three tablespoonfuls of strained orange juice once or twice a day, and 1 teaspoonful pure cod liver or halibut liver oil three times a day.

From six to nine months, a few teaspoonfuls of a well cooked strained cereal, cooked two hours in a double boiler, may be served with a little milk and water in addition to the 10 A. M. and the 6 P. M. feedings. The orange juice should be increased and continued, also at 2 P. M. a few teaspoonfuls of strained vegetable soup may be given in addition to the regular 2 P. M. feeding.

At nine months the average child requires 40 ounces (5 cups) daily. To 30 ounces ($3\frac{3}{4}$ cups) of milk add 10 ounces ($1\frac{1}{4}$ cups) of water and 3 level tablespoonfuls of milk sugar or corn syrup. This is given in five feedings. In addition to the cereal the baby should be given a piece of dry toast or zwieback after each feeding. He may be given also broth of beef, mutton, or chicken and vegetable soup (the vegetables should be sliced and mashed through a sieve) thickened with rice.

At twelve months, the baby is taking whole milk from the cup, well cooked cereals, broths, vegetable soups and finely mashed vegetables and cooked fruit. Only one new food should be added at a time and every new food is given in very small amounts at first, then gradually increased.



Nothing except water, orange or tomato juice and pure cod liver or halibut liver oil should be given between the feeding schedules, and the baby must not be given tastes of food other than those specially prepared for him.

Feeding—Feed the baby by the clock. When it is feeding time, *shake the bottle* gently to mix the contents and place it in a pan of hot water to warm it. Test the temperature of the milk by letting a few drops fall on the inside of the wrist.

If baby takes only a small amount of a feeding, do not save it for a later feeding but throw it away and let baby wait until the next feeding time.

Giving the Bottle—The bottle should always be held while the child is taking the food. Hold the baby in a semi-recumbent position. Do not allow him to drink longer than twenty minutes. Do not urge him to take more than he wants. If he does not take the whole feeding, throw it out. Do not save it for another time. Do not allow the baby to go to sleep with bottle.

During the feeding, the child should be placed upright and patted gently to allow him to bring up gas or air which he has swallowed. He should then be placed in the bed—but not rocked.

A child should not be played with after feeding. He should not be allowed to suck on an empty bottle nor allowed to sleep or play with the nipple in his mouth.

INFANT FOODS

COW'S MILK



The best food now and always for the growing baby is breast milk. The next best food is clean cow's milk. If you cannot give your baby breast milk seek a doctor that understands infant feeding, and let him show you how to prepare cow's milk so that it will agree with your baby.

Milk for babies should be obtained from healthy, tuberculin tested and Bang's disease tested cows. It should be milked by a clean milkman into clean sterilized pails, promptly cooled to 50 degrees F. and kept at about this temperature until ready for use. Never give a baby old or stale milk. Milk delivered in cans is not safe for babies because there are too many opportunities for dirt and impurities to get into it.

Nature never intended milk to be handled. It passes directly from the mother to the mouth of the young, both in human beings and animals. This is a wise precaution because milk is easily spoiled, especially if small particles of dirt or dust get into it, and it is a fertile field for growth of disease-producing germs.

All dairies would give cleaner milk if public sentiment demanded it. Insist upon clean handling by the dairy that supplies your baby with milk. The best milk is not the richest, but the cleanest. The scrub-cow of the clean and honest dairyman gives better milk for your baby than the high-priced Jersey cow of the dirty and dishonest dairyman.

Always boil the milk three minutes and place at once on ice in a vessel that has been sterilized by boiling. Never let the milk stand even five minutes in the sun. *Keep milk ice-cold always until warmed for immediate use.*

In traveling, or where the cleanliness of milk is suspected, or where milk or ice cannot be obtained, use powdered or evaporated milk.

DEFINITION OF PREPARED MILK

There seems to be some misunderstanding about dried milk, evaporated milk and condensed milk. For this reason the following definitions are given.

Several dried milk products can be found on the market. The kinds most commonly used in the home at present are dried whole milk, dried skim milk and dried partly skimmed milk. These three types vary somewhat in food value, flavor and keeping qualities because of the difference in the quantity of fat each contains.

Dried whole milk has had none of the fat, or cream, removed and has been dried until its moisture content does not exceed 5 per cent, according to government standards. Dried skim milk has had all of the fat removed before drying, while dried partly skimmed milk has had only part of the fat removed.



Dried whole milk contains all of the food elements found in fresh milk except vitamin C which is lost in the drying process. Dried skim milk contains a large proportion of the proteins, sugar, minerals and vitamins B and G of the milk. However, since much of the fat of the whole milk has been removed in the preparation of dried skim milk, it is lower in fuel or energy value, is less rich in flavor and is a very poor source of vitamin A, as compared with whole milk. When dried skim milk is used, care must be taken to give the child cod liver oil and orange or tomato juice.

The low cost and the convenience in carrying and storing canned milk and dried milk have encouraged its use in infant feeding.

EVAPORATED MILK

Evaporated (unsweetened) milk is pure, fresh, cow's milk with much of its water removed by evaporation in vacuum pans. "Evaporated milk" is simply milk reduced in water content and then canned without sugar.

When cow's milk is difficult to procure and keep in a wholesome condition for the baby, evaporated milk can be used with complete safety and satisfaction. It will be found especially convenient for mothers to use when they are traveling or on a vacation.

An unopened can of evaporated milk will keep indefinitely but *once opened* it must be handled and kept cool like any other milk. Evaporated milk diluted with an equal measure of boiled water may be used in much the same way as fresh milk.

If it becomes the regular food for the baby, it should be supplemented with cod liver oil or halibut liver oil and orange juice or tomato juice as directed by your physician.

CONDENSED MILK

Condensed milk is not only reduced in water content but also has sugar added to help in its preservation.

Condensed milk is much thicker than unsweetened evaporated milk because of the added sugar. It is so sweet that it should not be used for infant feeding unless prescribed by a physician.

Condensed milk is not cheaper than fresh cow's milk, although it may appear to cost less.

MODIFICATION OF MILK



A young baby frequently has difficulty when fed raw cow's milk, therefore, it is advisable that the milk be modified, according to the child's individual needs.

Modified milk is milk to which water, some form of sugar or other substance has been added so as to make it suitable for a baby's stomach.

Cooled boiled water, barley or lime water, lactic acid or lemon juice are added to dilute cow's milk and make it more digestible. Some form of sugar is added not only for the sweetening, but to supply the necessary food value and to make it more nearly like mother's milk.

The prescription which the physician writes for modifying milk is called the formula. As baby grows older he requires a greater quantity of food, so the formula must be changed, using more milk and less water. It is upon the correctness of these formulas that baby's health and growth depend.

PREPARATION OF A SAMPLE FORMULA FOR A SIX-MONTHS-OLD BABY

This sample formula is for an average baby and may not be the right mixture for your baby. Consult your physician for specific formula.

INGREDIENTS

Whole milk, 26 oz.; water, 14 oz.

Three tablespoons of corn syrup. Mixture to be boiled three minutes.

Divide into five feedings of 8 oz. each to be given at four hour intervals.

Always wash hands clean with a brush, soap and water before handling or preparing the milk.

Boil utensils, bottles and corks, and place them conveniently on the table.

Wash the top of the milk bottle with damp cloth and remove particles of dust.

Invert bottle several times to thoroughly mix cream, since whole milk is used.

Use nursing bottle or graduate to measure milk and water and place in sauce pan; boil three minutes over slow flame stirring constantly. Remove from fire and add sugar.

Pour eight ounces of mixture into each of the five hot sterile bottles and cork.

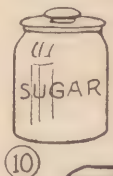
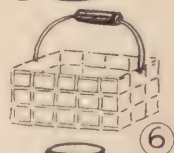
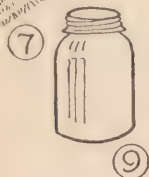
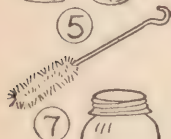
Cool quickly and put on ice or in refrigerator at once.

CARE OF BOTTLES AND NIPPLES



Select good quality aluminum-ware for the utensils for preparing baby's milk and never use them for any other purpose. They must always be kept scrupulously clean, and boiled each time before using. Have a pair of forceps with which to lift the articles listed below.

EQUIPMENT



1. Large pan with inverted pie pan or wire rack in which to boil nursing bottles, corks, spoons, funnel and other equipment to be used in preparing formula.
2. 1 two-quart sauce-pan with handle.
3. 2 tablespoons.
4. 1 measuring cup.
5. As many nursing bottles, nipples, and corks as are needed for twenty-four hour feeding.
6. 1 wire rack for holding bottles.
7. 1 bottle brush.
8. 1 two-quart fruit jar for cooled, boiled water.
9. 1 fruit jar for utility purposes.
10. 1 jar for malt sugar, milk sugar or cane sugar, as ordered by the physician.
11. 1 glass or enamel funnel.
12. 1 box of baking soda or borax.

Bottles—Select bottles with smooth, round sides and marked for the different quantities of food. There should be one more bottle than there are feedings in twenty-four hours. The bottle should be cleaned



immediately after feeding by rinsing in clear, cold water, then by soaking in suds, borax or soapy water. Bottles should be scrubbed with a clean brush in warm soapsuds, rinsed and boiled. Then they should be filled with boiled water until ready for use. The corks should be boiled each day and kept in a tightly covered receptacle.

Nipples—Use only non-collapsible nipples that can be slipped over the neck of the bottle. After each feeding, cleanse the nipple inside and outside, scrubbing it with a brush in warm soapy water. Rinse with clear water. Wrap the nipples in a clean cloth and boil them once a day. Drop them into a sterile jelly glass and put the lid on tight. Never touch with your fingers that part of the nipple which must go into the baby's mouth. The hole in the nipple should be only large enough to allow the drops to fall about one and one-half inches apart when the bottle is inverted.



CARE OF THE PREMATURE INFANT



A premature baby is one that has not developed fully before birth. These babies may be born before the expected time, or may be born at the expected time but have not grown as rapidly as they usually do in the mother's womb. Babies are considered premature when their birth weight is less than $5\frac{1}{2}$ lbs.

Any baby weighing less than $5\frac{1}{2}$ lbs. at birth needs special care from the moment of birth, and arrangements should be made for this care immediately. These babies have to be fed carefully, they need to be kept warm, and by all means, kept away from all individuals, because these babies are very apt to contract disease and it is frequently fatal.

Premature babies very often develop diarrhea because of infection or improper feeding. This is a dangerous sign, and a physician should be summoned at once. If possible, an experienced nurse should be secured, because good nursing care usually determines the baby's chance for survival.

Most premature babies develop into strong healthy children in later years, if they survive the first few hazardous months. It is to be expected that they develop more slowly and the parent should not expect them to progress as rapidly as fully developed babies. In a short time premature babies will catch up with the full term babies in all respects.

WHAT THE PREMATURE BABY NEEDS

1. Give the baby breast milk, if possible. If too small to nurse at the breast, pump breast and feed with medicine dropper, a small piece of catheter being attached to the end of medicine dropper to prevent injury to child's mouth. Breast milk may be stripped into the baby's mouth but must be done *slowly*. Babies weighing less than 4 lbs. usually don't nurse well and should be kept in a warm bed continuously.

2. Keep the baby warm. Do not expose to cold for a second. Use warm covering. Secure an incubator, if possible. Wrap baby in warm clothing immediately following birth, even before oiling the skin. To know if baby is kept warm, it is necessary to take its temperature by rectum at frequent intervals during the first few days. The premature baby should not be removed from its bed for any cause during the first few days, except for breast feeding.

3. The premature baby should be handled as little as possible. Allow no visitors in its room for any reason. Handle the baby only when necessary, as for changing diaper, feeding, giving water, or bathing.

4. Do not bathe the baby until its color remains good, blue spells have ceased, and its temperature remains normal.

5. Make sure that you wash your hands thoroughly each time before handling the baby. Wear a clean gown if possible.

6. Blueness is a danger sign, and it often requires prompt treatment. Blueness is more common during the first few days. Constant attention is necessary if these attacks are to be overcome. Do not swing baby in the air or put in cold water. Stimulate the child by gentle slapping or thumping the soles of its feet until it cries. If oxygen is available, it will often prove to be very useful.

FEEDING THE PREMATURE BABY

Do not offer milk or water during the first twelve hours, but instead try to keep the baby warm. After the first twelve hours, one teaspoonful of breast milk every two hours, for babies weighing less than three pounds, is advised, and increase the milk by a half teaspoonful daily. If baby weighs three to four pounds, feed every two hours during the day, and every three hours during the night. Babies weighing four pounds or more should be fed every three hours day and night. Usually babies weighing less than four pounds, those having blue spells, and those whose temperature is inconsistent, should be fed in their crib. Keep the baby warm while nursing. A small nipple will often enable the baby to nurse from a bottle. Be sure milk does not flow too rapidly.

If breast milk is not available, evaporated milk is suggested. Cow's milk, if boiled, is often satisfactory. Be sure a physician decides what milk is to be used, and how to make the formula.

CLOTHING THE PREMATURE BABY

Clothing must be sufficient to keep the baby warm, and will vary with the time of year and how the home is heated. Stockings are advised for feet and legs. Sleeves may be sewed so as to keep out cold air. Shirts with sleeves should be made of cotton. Warm blankets are necessary. Abdominal binders help keep the baby's abdomen warm. Cotton is useful, if clean. Cotton is placed in the crib or box and another layer placed around the baby.

Notify your local health department. In this way you may be able to secure an incubator free, and a public health nurse can visit the home to instruct the person who is caring for the baby.

INCUBATOR FOR PREMATURE BABY



The cut below is a picture of an incubator which has been developed by the Georgia Department of Public Health. This incubator can be used with or without electricity. A number of these units have been constructed, and at least one has been placed in the custody of the local health department in counties operating under the Ellis Health Law. In counties where there is no health department or full-time nurse, the incubator is placed with the regional medical director and is at the disposal of all local physicians.

The incubator should be operated by an individual who is thoroughly familiar with its use. The unit is heated by electricity, provided electricity is available. It is necessary to adjust the thermostat to the temperature desired. Some babies will require a higher temperature and some a lower temperature. A trained person must be present to teach the nurse-maid, or member of the family, the details for adjusting

the air, humidity, and temperature of the incubator.

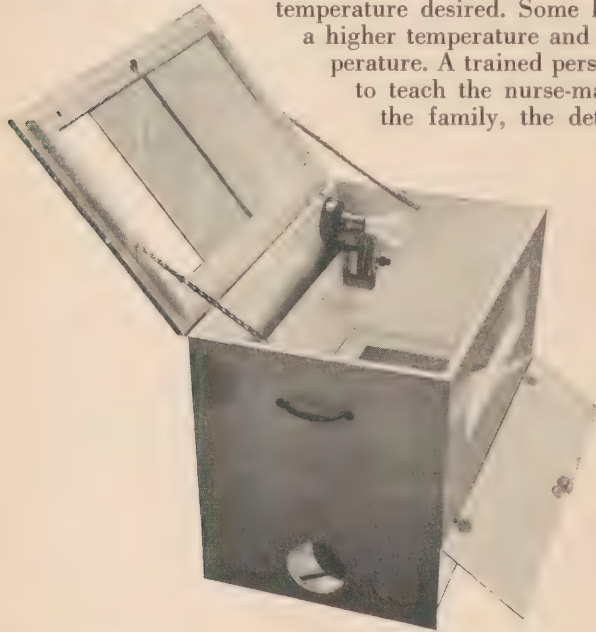
The top light of the incubator should always be kept cut out, except when rendering nursing service to the baby. The lights in the bottom, which furnish the heat, are controlled by the thermostat.

If electricity is available, the unit can be heated by means of the tank

in the bottom of the incubator. Hot water should be placed in this tank as often as necessary to obtain the desired heat. If electricity is used, the tank should be kept full of water so as to provide sufficient moisture.

No mattress is supplied with the incubator. It is suggested that a light weight blanket be folded and placed in a pillow slip. The blanket can be easily removed, washed, and kept in good condition.

When the incubator is no longer needed, it must be returned in good condition to the custodian.



FEEDING THE SECOND YEAR



The change from the bottle or breast to table food must be made intelligently if baby is to continue to grow properly.

No greater mistake can be made than to bring the second year child to the table and to feed him a taste of this or that as happens to strike the fancy or please the whim of his elders. It is this way that baby's digestion becomes disturbed and the way opened to serious illness.

It is also unfair to a very young child to expect him to sit quietly throughout the time the elders take for their meal. Neither does it add to the pleasure and comfort of the occasion to have ever to be on the alert to keep forbidden articles out of reach of the busy arms and fingers and to prevent baby from pushing himself over backward or falling from his chair.

A simple and convenient solution of feeding a young child, also a practical and safe substitute for the always dangerous high chair, is the separate small chair and table. Where the dining-room space is limited, this small table may be fastened on hinges to the wall so it may be dropped out of the way when not in use.

While the mother is preparing the meal for the family the baby may be served at his own table. In this way he may be given just what he needs. Not seeing other foods, he will not ask for them, and having finished his meal, he will be content to play or sleep while the family enjoys theirs.

DIET 12 TO 17 MONTHS

FOR THE NORMAL BABY

IF YOU HAVE A SICK BABY CONSULT YOUR DOCTOR

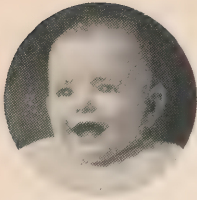
Four meals a day. Milk from the cup. No bottles ordinarily after the twelfth month. Milk should be boiled three minutes. Offer water frequently between meals. All food for the baby must be thoroughly cooked or indigestion will result.

First Meal 6 A. M.—Milk 8 ounces (1 cup) and thick barley water or oatmeal jelly (4 teaspoons), 1 or 2 pieces of dry toast or zwieback.

9 A. M.—The juice of one-half and later one whole orange (strained) should be given (tomato juice may be substituted).

Second Meal 10 A. M.—Milk with toast or zwieback, or well cooked cereal (oatmeal, cracked wheat) with milk.

Third Meal 2 P. M.—Chicken, beef or mutton broth with boiled rice or toast. Vegetable (thoroughly cooked and mashed through a sieve),



peas, carrots, turnip greens, spinach, asparagus, or baked or mashed potato, sweet or Irish, or cooked tomatoes. Junket or baked custard (made with egg yolk).

Fourth Meal 6 P. M.—Milk with toast or zwieback. Well cooked cereal with milk. Stewed fruit thoroughly cooked and mashed through a sieve. The baby should have 1 teaspoonful of pure cod liver or halibut oil twice daily unless

he is getting sun baths regularly.

In order to make the preparation of meals for the baby easier for the mother and to train the young child to eat at hours which are more nearly those of the older child, it is advised by some that the following schedule be carried out:

7:30 A. M.—Orange juice

8:00 A. M.—Breakfast

12:00 M. —Dinner

3:00 P. M.—Milk and crackers

6:00 P. M.—Supper

Another convenient arrangement is:

7:30 A. M.—Breakfast

10:30 A. M.—Glass of milk

1:30 P. M.—Dinner

6:00 P. M.—Supper

BABY SHOULD BE WEIGHED AND EXAMINED BY A DOCTOR ONCE A MONTH

DIET 17 TO 24 MONTHS FOR THE NORMAL HEALTHY BABY

IF YOU HAVE A SICK BABY CONSULT YOUR DOCTOR

Four meals a day. Give from three to four cups of sweet milk daily. Milk should be boiled three minutes. No food between meals. Water offered frequently. All food for the baby must be thoroughly cooked.

Breakfast 7 A. M.—Juice of one whole sweet orange (strained), or pulp of four or five stewed prunes. Cereal cooked at least three hours, with milk. Bacon, or one coddled egg if baby digests it well. Glass of milk with toast or zwieback with a little butter.

Dinner 12:00 M.—Cup of broth or soup made of beef, vegetables, chicken or mutton and thickened with farina, peas or rice. Beef juice



2 ounces, or scraped beef or white meat of chicken. And vegetables same as from 12 to 17 months to which may be added any other well cooked vegetable mashed through a sieve.

Desserts: Apple sauce, baked apple, blanc mange, corn starch pudding, custard, junket, stewed prunes, prune whip, plain rice pudding, home-made ice cream, or gelatine. Sweets should be given only as dessert after dinner. The child

should be put to bed and have his nap.

Lunch 2:30 P. M.—Milk or fruit juice; toast.

Supper 6:30 P. M.—Well cooked cereal with milk. Glass of milk with toast or zwieback and a little butter. Stewed fruit, mashed through a sieve.

Absolutely nothing between meals



DIET 2 TO 3 YEARS

FOR THE NORMAL HEALTHY BABY

IF YOU HAVE A SICK BABY CONSULT YOUR DOCTOR



Three meals a day. No food between meals. Water frequently. Milk should be boiled three minutes. All food for the baby must be thoroughly cooked.

Breakfast 7:30 A. M.—Juice of one sweet orange, or pulp of six medium sized stewed prunes, or stewed or baked apple. Well cooked cereal with milk and a little sugar. Soft boiled or coddled egg with toast. Glass of milk.

Dinner 12 to 1 P. M.—Broth or soup made of vegetable, chicken, beef or mutton, and thickened with peas or rice. White meat of chicken, smothered liver, lamb chop, rare roast beef or steak, boiled fish. (Meat should be cut into small pieces for a baby does not chew his food well.) Vegetables, thoroughly cooked and mashed through a sieve. Glass of milk, bread and butter.

Desserts: Simple dessert same as diet for child 17 to 24 months. The physician may deem it advisable for the child to have additional food, either in the morning or in the afternoon, of milk, bread and butter, or crackers.

Supper 5:30 P. M.—Milk with toast and butter. Well cooked cereal. Stewed fruit.

Desserts: Apple sauce or baked apple, cup custard, junket, orange juice, stewed prunes, rice pudding, tapioca, ripe bananas, or home-made ice cream.

Children are better off without candy, but one piece of strictly pure candy may be given a child of three after midday meal, provided he has eaten his meal.

Harmful Foods to be Avoided—Meats: All fried meats, corned beef, dried beef, brains, kidney, sweetbreads, duck, game, goose, ham, pork, sausage, meat stews, and dressings from roasted meats.

Vegetables: Fried vegetables of all varieties. Green corn, cucumbers, pickles, and all raw articles such as raw celery, raw onions and olives.

Bread and Cake: Griddle cakes, hot bread, rolls, sweet cakes, also bread or cake with dried fruits or sweet frosting.

Desserts: Store candy, nuts, pastry, pie, preserves, salads, tarts.

Cereals: The ready-to-serve or dry cereals should not be given any child under 5, unless ordered by his physician.

DIET 3 TO 6 YEARS

FOR THE NORMAL HEALTHY BABY

IF YOU HAVE A SICK BABY CONSULT YOUR DOCTOR

Three meals a day at 7:30 to 9 A. M., 12:30 to 2 P. M. and 5 to 6 P. M. No food between meals. Water frequently. Correct feeding is one of the most important factors in keeping your child well.

You should discuss this matter with your physician.

Milk—Three cups should be given daily.

Cereals—Must be cooked three or more hours. Oatmeal should be given several times a week.

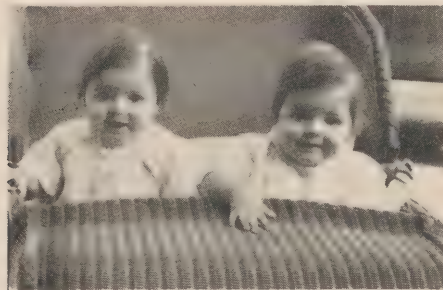
Bread—Toast with small amount of butter, **corn bread**.

Soups—Beef broth, chicken soup with rice, milk soups and vegetable soups.

Meats—Beef should be generally rare and should be given not more than once a day. Roast beef, lamb chops, white meat of chicken well cooked and minced, boiled or broiled fresh fish, or crisp bacon. Eggs, soft boiled or poached.

Vegetables—All vegetables should be thoroughly cooked and mashed. Asparagus tips, string beans, carrots, tomatoes, stewed celery, steamed rice, onions stewed soft with milk, peas, baked or mashed potatoes, turnip greens and spinach.

Desserts—Of the simpler kind such as stewed fruits and custards.



CARE AND PREPARATION OF FOODS

BUTTERMILK



Home-made buttermilk, freshly churned, is quite often advised by physicians, and by many individuals it is relished.

In the process of churning, the milk has been deprived of its butter fat and the physician sometimes thinks it best to return this fat to make the milk of the right food value. This is easily done by putting back the right amount of sweet cream.

Buttermilk is a good food for older children but we should always know that it is clean and properly cared for.

CLABBER

This is another form of milk that is sometimes used for children. It is an acid milk and at least offers a variety to the milk diet that might be of service where the child tires of sweet milk.

CEREALS

CEREAL WATER

Thin gruel or cereal water is usually made of prepared barley or wheat flour. Take from 1 to 2 level tablespoonfuls of flour, rub to a smooth paste with a little cold water, then stir into a pint of briskly boiling water. Stir constantly. After the mixture has boiled, place it in a double boiler and cook at least one-half hour. Cereal water made in this way should not need straining. If it has lumped, strain through a fine wire sieve.

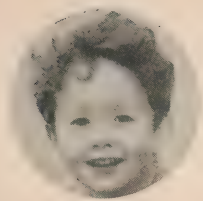
The amount of flour used may be increased from 1 to 5 level tablespoonfuls to a pint of water, according to the age of the child. If the cereal water cooks away, the contents may be made up to 1 pint by adding boiled water. If oatmeal or any other cut or whole grain is used to make cereal water for young infants, it should be cooked slowly at least one hour and strained before using.

GRUELS

Thick cereal water is often called gruel. Grains, such as pearl barley or oat flakes, in the proportion of from 2 to 4 tablespoonfuls to the pint of water, may be used instead of flour, but require much longer cooking. Gruels made of grains should be strained for infants under 1 year of age. Gruel thick enough to jelly when cold is often called cereal jelly.

OATMEAL GRUEL

One-fourth cup coarse oatmeal, $\frac{1}{2}$ teaspoonful salt, $1\frac{1}{2}$ cups boiling water, or hot milk. Add the oatmeal and salt to the boiling water, boil ten minutes and cook from three to four hours in a double boiler.



Strain and dilute with hot milk to the desired consistency either of thin paste or jelly.

CORN-MEAL GRUEL

One tablespoonful corn meal, $\frac{1}{2}$ tablespoonful flour, $\frac{1}{4}$ teaspoonful salt, 2 tablespoonfuls cold water, $1\frac{1}{2}$ cups boiling water. Make a smooth paste of the meal, flour, and salt with the cold water and add the boiling water. Boil ten minutes, then cook in a double boiler one

and one-half hours. Dilute with hot milk to the desired consistency of thin paste or jelly.

BREAKFAST CEREALS

A double boiler or fireless cooker should be used. Have salted boiling water in the upper section of the double boiler and place directly on the fire. Sift the dry ingredients into the water and stir constantly to avoid lumping. Boil ten minutes, then place the upper part of the double boiler over the lower part. Cover closely and simmer for the time required (see table on time for cooking cereals), or put into a fireless cooker from 10 to 12 hours, or overnight. Graham mush must be prepared like cereal water by first mixing it in cold water. Corn meal is best put directly into cold water in a double boiler and cooked without stirring.

PROPORTIONS AND TIME FOR COOKING CEREALS

1 cup oatmeal.....	4 cups water.....	3 hours at least.
1 cup rolled oats.....	2 cups water.....	1 to 2 hours.
1 cup farina.....	4 cups water.....	$\frac{1}{2}$ to 1 hour.
1 cup cracked wheat.....	6 cups water.....	3 hours at least.
1 cup graham flour.....	3 cups water.....	$\frac{1}{2}$ to 1 hour.
1 cup corn-meal.....	4 cups water.....	3 hours.
1 cup rice.....	3 cups water.....	50 minutes if steamed; 30 minutes if boiled after soaking overnight; other- wise $\frac{3}{4}$ of an hour.

Cereals are much more appetizing if cooked with salt. About 1 level teaspoonful of salt should be allowed to 1 cupful of dry cereal.

All cereals used for children need long cooking. If package cereals are used, they should be cooked for at least twice the time given in the directions on the wrapper. Even those cereals which are advertised as being partially cooked should be cooked for one hour if they are to be served to young children.

Milk may be substituted for half of the water used in cooking cereals and is best added when the cereal is partially or nearly done. The food value of the cereal is greatly increased by this procedure, and the cereal is made more appetizing.

BREADSTUFFS

DRIED BREAD

Cut thin slices of stale bread and place separately on an oven rack or on a toaster. Heat slowly, so as to dry without browning.

TWICE-BAKED BREAD (ZWIEBACK)

Cut or tear bread into small pieces and dry in a slow oven until thoroughly but delicately browned. The warming oven of a coal stove may be used; if a gas stove is used, the door should be left slightly open. Use unsweetened zwieback. Twice-baked bread may be used in place of cereal, either in slices or crushed.

WAFERS (PLAIN)

One cup flour, 1 teaspoonful salt, 1 tablespoonful butter, milk. Sift flour and salt together, mix in the butter, and add enough milk to make a very stiff dough; mix thoroughly, knead until smooth. Make into small balls and roll each one into thin wafer. Place in shallow, greased and floured pans and bake in a hot oven until the balls puff and are brown.

BRAN MUFFINS

One cup bran, $\frac{1}{2}$ cup flour, $\frac{1}{2}$ teaspoonful soda, 2 tablespoonfuls butter, $1\frac{1}{2}$ tablespoonfuls molasses, $\frac{3}{4}$ cup sour milk. Stir well and bake in a moderate oven in gem pans.

VEGETABLES

GREEN VEGETABLES

The most suitable ones for the use of infants and young children are spinach, turnip greens, chard, lettuce, beet greens, beets, carrots, turnips, onions, string beans, celery and asparagus. Wash and prepare these vegetables for cooking. Divide them into small pieces; boil slowly until tender in soup stock or in as little water as possible. Cook uncovered to retain color and allow escape of volatile oils. The water in which vegetables are cooked contains certain valuable minerals and should either be served with the vegetable or used in soup.

For infants these vegetables should be used first as strained soups without pepper, then as puree, and later mashed or finely divided. Butter or white sauce may be added to boiled vegetables in the second year, if desired.

STARCHY VEGETABLES

White potato, rice, macaroni and spaghetti are usually classed as starchy vegetables.

Potato—Baked potato is best for infants. Boiled or mashed potato may be given to older children.

Rice—When used as a vegetable, rice should be washed thoroughly





and cooked uncovered in considerable water. One-half cup rice, 4 cups water, $\frac{1}{2}$ teaspoonful salt. Do not let water stop boiling when rice is added. Boil 45 minutes, or until the grains are tender. Turn into a strainer, drain, and set in an oven a few minutes to dry. The water drained from rice prepared in this way may be used as a cereal water or in the preparation of vegetable soup.

Macaroni and Spaghetti—One-half cup macaroni or spaghetti, 6 cups water, 1 teaspoonful salt. Break macaroni into inch pieces and cook in boiling salted water from 20 to 30 minutes, until the tubes begin to split open. Strain, serve in soup or with butter or white sauce.

VEGETABLE SOUP

One cup carrots, 1 cup turnips, handful of spinach (other vegetables may be substituted), 1 teaspoonful salt, water to cover. Water drained from rice makes a more nourishing soup than plain water. Add 1 soup bone or one-half cup scraped or chopped beef if desired. Chop vegetables until fine or put through a meat grinder. Cover with water, using as little as possible, and boil slowly until very soft. For young infants, strain, pressing the vegetables with the back of a large spoon. The liquid will be cloudy. For older infants press the vegetables through a sieve, adding 1 or more teaspoonfuls of pulp to a small cup of liquid.

When thus prepared, and kept cold this soup may be kept from three to four days, provided the entire quantity is heated to the boiling point every day before using.

Well cooked rice, barley, or bread crumbs may be added for infants.

MEATS

MUTTON BROTH

Two pounds mutton cut from forequarter, 1 quart cold water, 1 teaspoonful salt. Wipe the meat, remove the skin and fat and cut into small pieces. Put in a kettle with bones that have been well broken. Add cold water and let it stand one-half hour to extract juices. Heat gradually, uncovered, to the boiling point and skim. Simmer four hours or until the meat is tender. Do not allow it to boil. Add salt when partly cooked. Strain, cool thoroughly, and remove all fat. Reheat the jelly as needed.

To increase the energy value of the food, rice, macaroni, barley, egg yolk, or whole egg may be added.

Beef broth or chicken broth is prepared in the same way.

SCRAPED BEEF

Have a piece of lean steak from $\frac{1}{2}$ to 1 inch thick. Lay it on a meat board, and with a large, heavy mixing spoon scrape the soft part off either side, leaving the tough fibers. Season the pulp with a little salt and shape into small flat round cakes $\frac{1}{2}$ inch thick. Boil or cook in



a hot, dry skillet, never in grease. This scraped meat may also be served with the addition of a little butter.

BEEF JUICE

Select a piece of meat from the rump or upper part of the round. Broil or warm slightly from one to two minutes to set free the juices. Cut in small pieces. Squeeze out the juice by means of a meat press or potato ricer. Feed the juice warm. One-half pound of steak should furnish about 2 ounces of beef juice.

EGGS

SOFT COOKED EGG

In a cup or a small saucepan boil 1 cupful of water to 1 egg. Remove pan from fire and put in egg. Cover closely and allow to stand 6 to 10 minutes, when the whites should be jellied and the yolks should be soft.

SCRAMBLED EGG

One egg, $\frac{1}{4}$ cup milk, $\frac{1}{2}$ teaspoonful butter, few grains of salt. Beat the egg in the top of a double boiler until light. Add the milk and other ingredients. Stir over boiling water until it thickens.

FRUITS

STEWED PRUNES

— Wash and look over the prunes, cover with clear, cold water and let them stand overnight. In the morning put the saucepan on the back of the stove where the prunes will cook slowly for four hours. No sugar is needed, as prunes are 18 per cent sugar and are made very sweet by this manner of cooking. This simmering process renders them rich and juicy. For infants, the prunes should be pressed through a fine wire sieve.

APPLE SAUCE

Pare apples, cut into small pieces, and add to every cup of apples $\frac{1}{4}$ cup of cold water. Cover and cook the apples until tender; strain. Add 2 tablespoonfuls of sugar to every cup of strained apples.

BAKED APPLES

Wash and core apples. Put in a shallow dish with 1 tablespoonful water to each apple; more may be added during cooking if necessary. Put 2 teaspoonfuls of sugar into the center of each apple. Bake in a hot oven from 20 to 30 minutes, or until soft; baste with the syrup every 10 minutes. For infants apples may be pared before baking, or the skin may be removed after cooking.

DESSERTS

JUNKETS

Plain—One cup fresh milk, $\frac{1}{4}$ junket tablet, 1 teaspoonful cold

water. Heat milk until lukewarm. Dissolve the tablet in cold water and stir into the milk. Pour at once into glasses and allow to stand one-half hour in a warm room. When firm set in a cool place until served.

Custard—One-half cup hot milk, 1 egg, 2 tablespoonfuls sugar, $\frac{3}{4}$ cup lukewarm milk, $\frac{1}{4}$ teaspoonful vanilla, $\frac{1}{2}$ junket tablet, 2 teaspoonfuls cold water. Beat the egg, add sugar, pour the hot milk on gradually. Cook in top of double boiler, stirring constantly until it thickens. Take at once from fire and cool. Dissolve crushed tablet in cold water; add to lukewarm milk; and add to custard when it is lukewarm, and blend thoroughly. Add vanilla. Pour into cups. Allow it to grow firm and chill.

BOILED CUSTARD

Two cups hot milk, 3 egg yolks, $\frac{1}{4}$ cup sugar, pinch of salt, flavoring. Beat the yolks slightly and add the sugar and salt. Pour the hot milk over this mixture, stirring constantly. Cook in a double boiler, stirring until the mixture thickens and will form a coating on the spoon. Cool and flavor. If the custard curdles, beat with an egg beater.

If the whites of the eggs are to be used, beat them very stiff and add 3 tablespoonfuls of powdered sugar. Place by spoonfuls on water which is hot but not boiling. Cover the dish. Test occasionally by putting a knife into it; when it is done nothing will stick to the knife. Remove from the water with a wire egg beater or split spoon and place on top of the custard.

GELATIN

A plain gelatin made with fresh strained fruit juice (orange) may be given to children. Artificially colored gelatins are not desirable.

A snow pudding made of gelatin to which beaten white of egg has been added may be used.

PUDDINGS

Cornstarch—One cup milk, $1\frac{1}{2}$ tablespoonfuls cornstarch, $1\frac{1}{2}$ tablespoonfuls sugar, pinch of salt, white of one egg, vanilla. Scald the milk. Mix cornstarch, sugar, and salt thoroughly; add slowly the scalded milk, stirring constantly. Boil three minutes and cook in double boiler 20 minutes. Remove from fire and while very hot fold in lightly but thoroughly the well-beaten white of egg. When partially cooled add flavoring to taste; put into wet cups or molds and let stand for several hours on ice. Remove from molds. May be served with a soft custard. Vary the pudding by adding a little melted chocolate.

Rice—One pint of milk, 1 cup cooked rice, $\frac{1}{4}$ cup sugar, $\frac{1}{2}$ teaspoonful of salt, flavoring. Mix the ingredients and bake in moderate oven until firm.

CORNSTARCH FRUIT JELLY



One pint fruit juice, 4 tablespoonfuls sugar, 3 tablespoonfuls cornstarch. Sweeten the juice to taste and heat to boiling. Make a smooth paste of the cornstarch and a little cold water, add slowly to the juice and boil five minutes, then cook in double boiler 20 minutes, stirring constantly at first. Pour into cold, wet molds. Serve cold.

PRUNE WHIP

One-third pound prunes, whites of 5 eggs, $\frac{1}{2}$ cup sugar, $\frac{1}{2}$ tablespoonful lemon juice. Pick over and wash prunes, then soak several hours in cold water to cover; cook in same water until soft; remove stones and rub prunes through a strainer, add sugar, and cook 5 minutes; the mixture should be of the consistency of marmalade. Beat whites of eggs until stiff, add prune mixture gradually when cold, and lemon juice. Pile lightly on buttered pudding dish, bake 20 minutes in slow oven. Serve cold.



BUILDING AND SAVING BABY TEETH

At birth, each deciduous (baby) tooth lies partly embedded in a cavity in the jaw bone, surrounded with and covered by the soft tissues of the gum. As baby grows, the teeth grow also and if baby is healthy they are ready to come through the gums at the sixth to ninth month.

There are twenty of these deciduous (baby) teeth, ten in each jaw. As a help in remembering the baby teeth, recall that there are as many teeth in the upper jaw as there are fingers on two hands; and that a baby has as many teeth on the lower jaw as he has toes.

THE NORMAL TIME OF TEETHING



6-9 Months
—two lower central incisors, or cutting teeth.



8-12 Months
—four upper incisors, or cutting teeth.



12-15 Months
—two lower lateral incisors, or cutting teeth.



14-15 Months
—four first molars, or double teeth.



18-24 Months
—four canines, or eye teeth.



24-34 Months
—four second molars, or double teeth.

The time of cutting teeth varies so in different children that it is difficult to lay down rules for their appearance. However, a child one year of age has, as a rule, six or eight teeth: at sixteen months there should be twelve teeth and at two and one-half years, the child should have the full twenty.

Teething is a normal process and seldom makes the baby ill. If baby is sick, or has fever or loose bowels, do not always attribute it to teething but go to a doctor and find out what is wrong. The gums are often swollen and red while baby is teething and he may be irritable and cross.

AIDS IN TEETHING:

A clean, smooth, silver teaspoon makes a good toy and at the same

time is safe for the baby to bite. Do not give him a rubber ring or a pacifier on which to cut his teeth for they are seldom clean. Keep the fingers and any unclean articles out of baby's mouth.

GOOD BABY TEETH ARE THE RESULT OF:

1. Prenatal care. As the baby teeth are formed before birth, the mother is the child's only source of nourishment while these teeth are being built.
2. Proper nursing and feeding of the baby. Diet is of great importance in building and protecting the teeth.
3. Protection of general health of the baby. The structure of the teeth may be influenced by the child's health during the years in which they are forming, especially the first three or four years. Prevent and avoid infectious and contagious diseases of childhood.
4. Home care. As soon as the first teeth have come through they should be brushed with a small and very soft brush dipped in cool salt water (one-half teaspoonful of salt to a glass of water) or in plain boiled water. Brush downward when cleaning the upper teeth, upward when cleaning the lower, brushing both the inside and the outside of all teeth and chewing surfaces. Rinse the mouth thoroughly after each brushing.
5. Dental care. Every child at two years of age should be taken to the dentist for thorough inspection and cleaning of the teeth. Every six months the visit should be repeated. The dentist will repair the small pits and fissures found in the baby teeth at this time thereby preventing tooth ache, abscessed teeth and the loss of baby teeth at the most important time of his life. The quality of the second teeth depends to a great extent upon the care given the first set.

Sound and well built teeth and healthy gums in a clean mouth mean much to the child's health, appearance, happiness and success in life.



SLEEP AND THE BABY'S ROOM

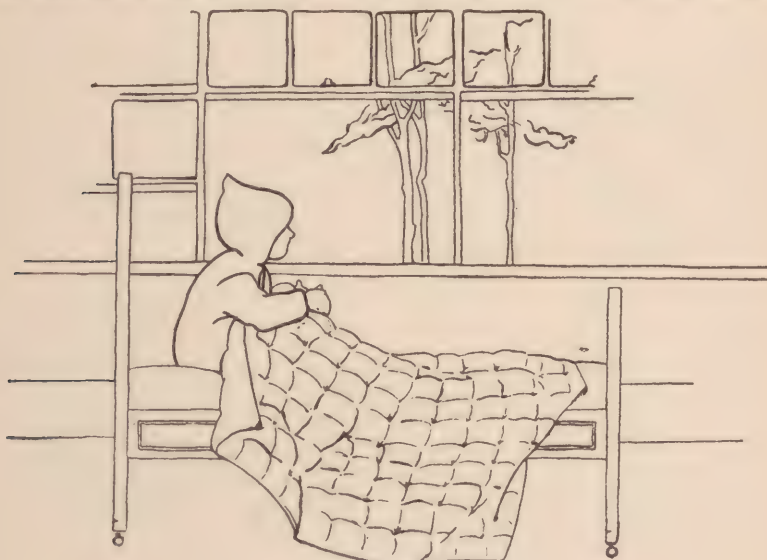


The child's body develops faster during the first year of his life than at any other period. For that reason a baby needs a large amount of sleep, with the best sleeping accommodations, so that the hours of sleep may be of the greatest value to him.

Baby should sleep alone. Babies may be smothered to death while in bed with an older person, some part of whose body may be thrown over baby's face while asleep. The young baby should sleep eighteen or twenty hours out of the twenty-four. He should have sixteen hours from a month to the age of one year. From the first to the second year he should sleep twelve hours. There can be no hard and fast rule as to the number of hours the baby should sleep. The need for sleep varies with each child. Some children require less sleep while others require more. A baby should have the longest period of unbroken sleep at night and should not be permitted to turn night into day.

The daytime naps or rest periods should be continued until the school age, and after this if the child is not vigorous, or is nervous or undernourished. The baby should never take a nap in all his clothes. The shoes of older children especially should be removed. In hot weather remove all but the shirt and diaper from the baby.

The sleeping room should be darkened and well ventilated. The baby should be fed and made comfortable in every way, put in his crib



and let alone to go to sleep. He should never be rocked to sleep, jolted or bounced.

OUT-OF-DOORS

Sleeping out-of-doors in summer, both by day and by night, is good for the baby after he is a month old. He must be protected from flies, mosquitos, and other insects, as well as shielded from the wind and sun, and covered if there is a sudden drop in temperature. The sleeping porch must be protected properly by canvas curtains and in cold weather a hot water bottle should be placed in baby's bed.

OUTING

The baby must have an abundant supply of fresh air day and night. He should be kept out of doors as much as possible, avoiding the hot sun and days when the thermometer drops below 32 degrees F., because of the danger of the face being frostbitten. In the summer time, a newborn baby may be taken out of doors the first week. Begin with a daily outing of fifteen minutes about noon and gradually lengthen the time in the forenoon and afternoon until the baby is out from ten o'clock until two o'clock. He must be clothed properly according to the weather and his eyes protected from the sun, or any strong direct light. At all ages, the baby carriage must be one in which the child can lie comfortably at full length and stretch his arms and legs. When sitting up, his spine and feet must be supported properly.

PLAYING

A young baby needs rest and quiet. However strong he may be, too much playing is bad, as it is likely to result in a restless night.

Rocking the baby, jumping him up and down on the knees, tossing him, shaking bed or carriage or keeping him in constant motion is bad for him. These things disturb baby's nerves and make him more and more dependent upon these attentions. When the young baby is awake, he should be taken up frequently and held quietly in the arms in various positions, so that no one set of muscles may become tired. An older child should be taught to sit on the floor or in his pen or crib and amuse himself during a part of his waking hours.

BABY'S ROOM

If the house is small, it is better to do without parlor which is not often used and give one room to the little folks who will use it every day.

Sunshine is as necessary for babies as for plants. A baby not given sunshine will droop and pine just as the plant does. Therefore, choose a sunny room for the baby's room and one which has windows and doors on opposite sides so that a continual abundant supply of fresh air may be obtained.



The baby's room should be kept comfortably warm in winter. Furnace heat is better than stoves. Have air moist. If stove or hot air furnace is used, have water on stove or in furnace. Never allow temperature in winter to get over 72 degrees F. Oil and gas stoves exhaust the air in a short time. An open grate, while dangerous unless properly screened, is a great convenience both for the additional heat and because it helps

to keep the air of the room in circulation. The floor should be bare so that it can be kept clean by wiping it with a damp cloth or dust-mop. A few washable rugs may be added. Plain white sash-curtains should be provided at the windows, as they can be laundered frequently.

FRESH AIR

Fresh air is essential for the healthy baby. To obtain the best air without drafts put baby's bed in the middle of room. The windows may be opened from the top. They should be screened against flies and disease-carrying insects. Windows facing the hot sun should be provided with awnings. In the winter time, a plentiful supply of fresh air without drafts may be obtained by tacking thin muslin or cheese-cloth over the open windows or on the window screen. This also keeps out particles of coal, soot, dirt and dust.

OUTDOOR SUN BATHS

On the first sunny day in early spring the baby may be given an outdoor sun bath for a few minutes held in the mother's lap or in the carriage with the hood pushed well back. Each day thereafter the time of the sun bath should be increased by 2 to 3 minutes for a fair-skinned baby and 4 to 5 minutes for a darker-skinned baby. Every few days the amount of body surface exposed may be increased, at first slowly, but as the days grow warmer, more rapidly. Later the shirt may be taken off and the sun bath given with the baby wearing only a diaper. Care must be taken not to burn the skin. The little baby should not be given a sun bath longer than 15 minutes on the front and 15 minutes on the back, and then only if the sun baths have been increased very gradually. Older babies may be given longer sun baths, but not more than half an hour twice a day.

If the baby has been getting direct sunlight through an open window and is used to the sun, the first outdoor sun bath may last longer than the 3 to 5 minutes that are allowed for a baby unused to exposure, and the time for later sun baths can be increased accordingly. Sun baths may be given by putting the baby in the sun twice a day, at first using half the required time at each period, later the full time.

In the winter sun baths should be given between 12 noon and 2 P. M., when the sun is warmest. In summer, on the hottest days, early in the morning and late in the afternoon are the best times. On the hottest days the time of exposure should be shortened.

FURNITURE



All the furnishings for the baby's room should be of the simplest kind and such as can be wiped readily with a damp cloth or laundered and so kept free from dust. The equipment may include a screen to protect baby from drafts, a low chair without arms for the mother, baby scales, bath tub, basket for toilet articles and plain table. A chest of drawers or bureau is a welcome convenience.

BED

Baby's first bed may be made in an ordinary clothes basket, lined with a sheet. This can be picked up and carried about easily, which is an advantage. It should be placed on a chair or a box, never on the floor.

A feather pillow is not suitable for a mattress or for the baby's head. Use an old, soft folded blanket or ordinary mattress of hair, felt or cotton, protected by rubber sheeting, light oil cloth or paper blanket. Since rubber or oil cloth is hard and uncomfortable, a soft washable pad should be used directly underneath the sheet. Table felting makes an excellent pad for this purpose.

The young baby will breathe more easily and take a larger supply of air into his lungs if no pillow is used. A clean soft folded napkin may be placed under his head. Toward the end of the second year, a thin hair pillow may be used.

TOILET TRAY

The tray for the baby's toilet is best of white enamel.

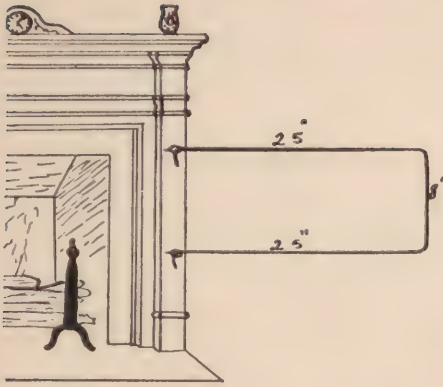
The supplies for this tray should be of the best quality. It is better to have a few good things than a lot of material of poor quality which will seldom be used.


The tray should contain:

Olive oil or tube of vaseline	Pure white castile soap
Boric acid, powder or solution	Unscented talcum powder
Four dozen safety pins of different sizes	Absorbent cotton

A small cake of soap makes the best pincushion for safety pins. It keeps the points well, can be easily cleaned, and is convenient to use.

DRYING RACK



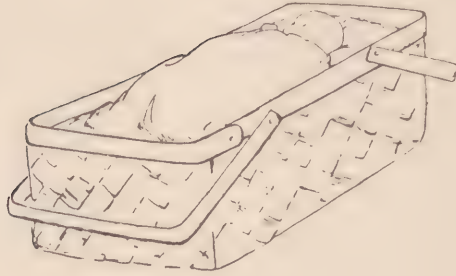
It is often necessary for some place to be provided for warming or drying the baby's clothes, wash rag, or towel. An inexpensive rack can be made by anyone in a few minutes. Take a good stiff piece of galvanized wire about five feet long, bend it in the shape of a  and turn down the ends about an inch. Put two screw-eyes in the edge of the mantel-piece about

eight inches apart just above the level of the top of the grate or fireplace. These act as receptacles for the turned down portion of the wire, and when put in position this can be swung in front of the fire or back out of the way or removed from the screw-eyes and put out of sight. On cold, wet days you will find such a rack convenient.

WARM WATER

The mother should have a constant supply of warm boiled water for the baby. The mother who does not have the convenience of running water in her home will find an ordinary earthen-ware jug the best and most convenient container. It should be at least a half gallon in capacity. Such a jug, setting on the corner of the hearth near an open fireplace will keep warm all the time and will boil if it is necessary. It should not be closed by a cork or other tightstopper as it would burst or blow the stopper from accumulated steam. A clean cloth or a piece of cotton makes a good stopper. Have a jug for the baby.

BABY'S FIRST CARRIAGE



A large-sized stout market basket makes the very best sort of a carriage for the new baby. This kind of carriage is equally useful either for the street or in a buggy or automobile. The average-sized baby can be carried in one comfortably until he is six months old. The basket shown in the illustration is 27 inches long, 12 inches wide and 8 inches deep. Such a one may be purchased at almost any general merchandise or department store at moderate price.

The outside of the basket may be draped or given one or two coats of white paint. To drape the inside of the basket requires a small roll of cotton batting and one and one-half yards of yard-wide material. Wash silk, light-weight cretonne, silkaline or any pretty soft material in light or delicate coloring is suitable.

BATHING



should feel comfortably warm to the elbow.

EQUIPMENT

Baby's own tub, soap, towels and washrag, bath thermometer, powder, clean clothes, chair, and table: all these and his full set of clean clothing should be arranged beforehand.

FACE

Before undressing baby, wash the face, head and ears, being careful not to get soap into his eyes and mouth. Very little soap is needed for baby's skin. It is most important that the skin should be rinsed thoroughly. Pat the skin dry with a soft towel, taking care to dry well back of the ears and in the soft folds of the neck. Do not rub. Be gentle or you will injure the baby's skin.



UNDRESSING AND DRESSING

Dress and undress baby with care, otherwise child may be injured, particularly during the first few weeks. If held on the lap, a large bath towel should be placed across the lap to prevent his tender skin coming in contact with a rough or worsted dress, and to receive him when he is lifted out of the tub. A more convenient way of bathing the baby is



to undress him on a table instead of the lap. After the bath dress him as rapidly as possible. If the weather is cold, take care not to expose him unnecessarily. If he turns slightly blue, discontinue bath at once and wrap in a warm blanket.

THE BATH

Care should be taken never to plunge the baby into water that is too hot or too cold, nor to let him fall and strike the tub or in any





way to get frightened at his daily bath. If the bathing is done properly baby will enjoy his bath so thoroughly that giving it will be a pleasure.

Soap the entire body thoroughly, then place him in the bath, holding him with the left forearm under the neck and shoulders, the left hand under his left arm, and lifting the feet and legs with right hand. Support the baby while in the tub with the left hand and arm. Sponge the entire body with the right hand, then lift the baby out and wrap him in a bath towel. Dry carefully with the soft towel patting the skin gently. Never rub the baby's tender skin with anything less smooth than the palm of the hand.

BRAN BATHS

When there is any irritation of the skin, such as chafing or prickly heat, oil rubs may be given, or bran may be substituted for soap. Make a cotton bag of cheesecloth or other thin material and fill loosely with bran. Soak the bag in the bath water, squeezing it until it becomes milky.

OLIVE OIL RUB

For the normal healthy skin fresh olive oil, especially in winter, applied each day after bathing, in the creases under arms, between legs, around neck, and to the buttocks after bathing and after cleaning following bowel movements, will prevent chafing and irritation. It will keep the skin soft and in excellent condition. For the normal skin the olive oil should always be used instead of talcum or any other powder for the baby.



POWDER

Talcum or any powder for the baby is not recommended, but under certain conditions the physician may prescribe powder. Powder should never be applied to the damp skin. Never use enough to cake or harden.

CLOTHING



In dressing the baby, he should be handled as little as possible. A young baby's body is very tender and if handled roughly or too much, he will be made very uncomfortable. All the clothing should be drawn on and off over the feet instead of over the head. Baby should be dressed to suit weather.

When he is dressed completely, baby has on a shirt, diaper, slip, dress, stockings and bootees. None of this clothing should be heavy or stiff. It is better to dress a baby lightly and slip on a short jacket for cool mornings and evenings. When baby is a few months old, it is a good plan on a hot summer day to take off all his clothing for a few minutes in the middle of the day and allow him to roll and play.

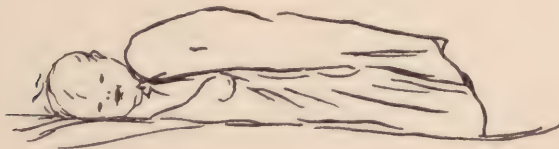
Elaborate or fancy-trimmed garments have no place in a baby's wardrobe. Both mother and baby are better off without them, especially if the mother must care for the garments herself. Lace about the neck of a baby's dress is liable to irritate the tender skin and cause the child a great deal of discomfort, as will starched garments. Sometimes these irritations are difficult to heal.

For the first few weeks of life, the new baby does little but eat, sleep and grow. He needs many clean clothes, and these should be of the simplest and most comfortable kind. The following are all that are necessary:

SLEEPING GARMENTS

Baby needs 4 nightgowns or sleeping bags of white outing flannel or knitted material. For winter wear, the sleeves and hem of the nightgown may be made 2 inches longer than the baby's hands and feet to protect them from the cold.

Sleeping bags are made thirty-three inches long and twenty-seven inches wide, open down the front. The baby is laid in and the bag buttoned up. He can be changed without taking him out of the bag.





BANDS

Three flannel abdominal bands made of soft, white, unhemmed flannel, five or six inches wide and from fourteen to eighteen inches long. They should be wide enough to protect the abdomen and not wide enough to wrinkle. They should go once and a half around the baby's abdomen, lap across the front and pin at the side. After the cord is healed bands should be discontinued.

SHIRTS

Three shirts, wool and cotton, or wool and silk, never all wool. Many specialists prefer all cotton. For the very hottest weather shirts may be omitted. The shirts should be fitted smoothly. They may either lap or button in front.

STOCKINGS

Three pairs of booties and 3 pairs of merino or cashmere stockings, if the weather is cold.

BLANKETS

Three blankets of closely knitted or crocheted wool, or made from an old soft woolen blanket.

DIAPERS

Four dozen diapers, 2 dozen 24-inch, 2 dozen 30-inch are convenient. For the first few weeks, provided it is not hot weather, diapers eighteen inches square of old, soft knitted wear are very convenient. Several dozen pieces of old sheeting torn into pieces ten inches square may be put inside the diapers and burned when soiled.

When diapers are removed, they should be put into a covered pail of cold water to which borax has been added. Later they should be washed clean with a pure soap, boiled, rinsed thoroughly, but not blued, then hung in the sun to dry. Soap and blueing are very irritating to a baby's skin. Diapers should be folded, pressed with a hot iron and put away. A soiled or wet diaper should *never be used a second time without washing*. The urine contains substances which are very irritating to the skin of a baby.

DRESSES

For every-day wear, there should be 6 plain white dresses. These should be cut by the kimono sleeve pattern and a tape run through a facing around the neck and sleeves. If they are made twenty-one inches long from shoulder to hem, they will not need shortening. They should never be made longer than twenty-seven inches. Two Sunday dresses may be made with bishop sleeves and a little embroidery on the front. Set-in sleeves are more difficult to put on a baby.

JACKETS



For cool mornings, baby needs 3 short jackets. These are made of white flannel by the kimono sleeve pattern, or they may be knitted or crocheted with close stitches. There should be no loose stitches or scallops or other trimming to catch on buttons or the baby's fingers.

OUT-OF-DOOR GARMENTS

The healthy baby is taken out of doors, so he must have a wrap and hood. This wrap is made like the sleeping bag except it is of white eiderdown or flannel. It may be sewed together or bound around with ribbon. At four months, the upper corners may be opened so as to allow the baby to get its hands out freely. When baby begins to walk, a very comfortable coat may be made from the bag. Open it and hem at the bottom, shape the top loosely by a kimono slip pattern.

For winter, the hood may be made of the same material as the wrap, or it may be knitted or crocheted. For summer, a silk or cotton knitted or crocheted hood of an open lace pattern and lined with the very thinnest white silk is comfortable. Wash-hoods may be made of soft white embroidered lawn and laundered without starch. The ties on the hood should be such as can be laundered easily. A little chin strap fastened at one side of the hood with a snap or hook and eye is very convenient and does away with the bow under the baby's chin.

WASHING WOOLEN GARMENTS

All woolen or part woolen garments must be washed very carefully. They should be washed by hand in tepid soap-suds (mild soap), rinsed in tepid clear water and hung in the shade to dry. When dry, they should be pulled or patted into shape or smoothed with a warm iron before being put away. Always before putting garments on a baby, they should be held to the cheek to be sure they are dry and warm.

KEEPING THE BABY WELL



To keep a baby well is much easier than to cure him once he becomes sick.

In a room crowded with people there may be some one who is suffering from a communicable disease, or who may have come from a home where one exists. For that reason, a baby should be kept away from crowds and from crowded places in order to protect him from exposure to disease.

A healthy grown person always carries disease germs in his mouth. They do an adult no harm. But in kissing a baby on the mouth, or hand, these germs may be transferred to the baby's tender mouth and make him ill or even kill him. Kissing the baby on the mouth or hand, even by his own mother, should not be permitted.

A *little cold* in a big person is likely to mean a *big cold* in a little baby. Any one suffering from a cold, cough or sore throat should remain away from a young child. If the nursing mother contracts a cold she should wear a mask while nursing or handling the baby and take every precaution against infecting her child.



PREVENTABLE DISEASES



There are several diseases of children that are brought on by the need of certain foods that contain elements which are necessary to maintain proper balance; two will be mentioned.

RICKETS

This is not an uncommon disease. It is a softening of the bones, and can easily be prevented by giving the baby proper food and plenty of direct sunshine, not through a glass window, as the glass filters out the essential rays. Sun baths should be begun when the baby is about four weeks old and be given on every sunny day through babyhood. The sun bath may be begun indoors, in the sunlight from the open, unscreened window. First expose the face (with the eyes turned away from the sun) and the arms, then the legs and gradually increase the area exposed until the whole body becomes tanned. The duration of the sun bath should be gradually increased from three to thirty minutes, taking care that the skin is only slightly reddened, not burned. During spring, summer and early fall the sun bath should be given outdoors. In very hot weather give them before ten or after four o'clock. Rickets is due to a deficiency of lime and phosphorus in the bones; this is not deposited properly without sunshine. In these cases you should consult your physician, who would most likely prescribe pure cod liver or halibut oil, which has been referred to as "bottled sunshine". Other foods are necessary that have in them a substance known as vitamins. A baby to grow and develop properly must have them supplied in its food or that of the mother. Cod liver, halibut oil or viosterol should be given to all babies to prevent or cure rickets.

SCURVY

This is due to a lack of a vitamin which is found plentifully in orange or tomato juice. Scurvy causes swelling and reddening of the gums; the gums bleed easily. Sometimes blood appears under the skin, with fever. To prevent scurvy the mother should have plenty of fruits and fresh vegetables. Baby should have orange juice or other fruit juices.

IMMUNIZATION

Today it is possible to stamp out diphtheria and smallpox by vaccination, and quite likely typhoid fever. If these diseases occur it is due to ignorance or negligence on the part of those intrusted with the care of children. It is the duty of every parent to learn about the prevention of these diseases and to give his or her child the benefit of such knowledge. It may mean the life of the child.

DIPHTHERIA



Diphtheria, the dread disease of childhood, has taken a tremendous toll in the past and continues to destroy the health and lives of a far greater number than is necessary.

During the past fifteen years certain vaccines have been devised which produce active immunity that is more or less permanent. The first of these vaccines to be developed was called toxin

antitoxin, which when injected in three small doses under the skin at weekly intervals will produce actual immunity in about seventy-five per cent of those receiving it. A few years later another vaccine known as toxoid came into use. This proved to be much more efficient than the toxin antitoxin. Two doses of toxoid will immunize about ninety per cent of those who receive it. Toxoid has recently been improved so that even one dose is more efficient than two doses of the first toxoid used. This latest vaccine is called alum precipitated or A. P. toxoid. Two doses of this vaccine, given a month apart, quite likely will give immunity against diphtheria.

Immunity can be proven by means of a skin reaction known as the Schick test. The test consists in the injection of a very minute amount of diphtheria poison into the skin. If the person is susceptible, an area about the site of the injection the size of a dime or nickel becomes reddened within twenty-four or forty-eight hours, the color persists for five or seven days, gradually changing to a brownish tint. Later the scales form on the skin and come off. This we call a positive test and indicates the absence of immunity to the disease. If there is only a slight reddening which disappears after two or three days, this means that the person is immune and is called a negative Schick test.

Babies during the first five or six months of life usually possess an immunity to diphtheria and will therefore give a negative Schick test.

Beyond this age immunity is rapidly lost and the great majority of children from this age to six give a positive Schick test. After about six years the body begins building up its own natural immunity. It is therefore important that all children from six months to six years be given toxoid, there being practically no need for the Schick test.

Finally, while toxoid is very efficient, occasionally a single dose is not enough. Hence it is important to confirm the immunity by having the Schick test applied six to twelve months after the toxoid is given. Occasionally the immunity produced by toxoid loses strength after a few years. For this reason the Schick test should be repeated every three or four years or as often as direct exposure to diphtheria is suspected.

TYPHOID FEVER

Although typhoid is less frequent in children than in young adults, and for this reason the necessity for vaccination has been minimized, still it frequently occurs and is a source of great danger. It is equally important that the child as well as the adult should receive the benefit



of this treatment. No child should be permitted in a public swimming or wading pool without immunization. It must be remembered that every case of typhoid fever must come from the typhoid carrier. The carrier should not be permitted in wading or swimming pools. Tests should be made of suspected carriers.

SCARLET FEVER

Scarlet fever is easily carried. The infective germs are generally found in the discharges from the patient's nose and mouth, also from any suppurating glands, ears, etc.

The public fears scarlet fever, and rightly so; it is a disease to be greatly feared. Many children have died from it and possibly more from its after effects. Many who survive go through life handicapped. Immunization has been tried but on account of the reaction and short period of immunity conferred has not been universally advised.

SMALLPOX VACCINATION

The baby should be vaccinated before it is one year of age, preferably from three to six months.

If he is vaccinated before he begins to creep about, he will be much less likely to injure and infect the scar.

Since the introduction of vaccination, smallpox has been greatly reduced. Nevertheless, it is a constant danger, occurring in scattered cases in Georgia among people who are not vaccinated. It is only among large numbers of unvaccinated that smallpox can become a dangerous epidemic. The trouble and expense of vaccination is slight, practically nothing. The danger of smallpox is permanent disfigurement or death. We cannot urge too strongly the vaccination of the baby, certainly by one year of age.

WHOOPING COUGH

Whooping cough demands serious consideration. The disease causes as many deaths as diphtheria, and as many as scarlet fever and measles combined. About 300,000 cases of whooping cough are reported annually in the United States. We feel sure, however, that this is far below the correct number of cases for so many children with whooping cough never see a doctor.

A disease that is so common and one that causes deaths in fifteen per cent of infants having it should be controlled if possible. There is now sufficient evidence to advocate the immunization against whooping cough in babies and children up to four years. Be guided by the advice of your doctor.

TUBERCULOSIS

Tuberculosis is a disease that is due to a germ known as the tubercle bacillus. Babies are not born with the germ in their bodies; therefore, it can be said that no one is born with tuberculosis. This disease, then, is not inherited.



The introduction or entrance of tubercle bacilli into the tissues of the body is called tuberculosis infection. Children are particularly susceptible to infection. If an individual has sufficient natural resistance, is not infected with too many germs at one time, or too many times, the germs will be walled off in the lungs, glands, or other tissues so that no injury to them is produced. On the other hand, inflammatory reaction

in whatever tissue or organ the germs lodge in may result and then we have tuberculosis or tuberculous disease. This occurs when resistance is overcome by too many infections, because of inadequate and improper diet, lack of fresh air and sunshine, unhygienic and insanitary conditions, or anything that will lower normal resistance to disease. Even when the germs have been walled off or imprisoned, this protective wall may be broken down through violation of the laws of health and right living and the germs, which may live for years in the body, will be liberated and they will multiply and spread so rapidly that tuberculosis finally develops.

It should always be remembered that a case of tuberculosis means that some one neglected to do his duty in the prevention of the spread of the disease.

CURING OF TUBERCULOSIS

Many cases of tuberculosis, if discovered before too far advanced, can be arrested and even cured when proper treatment is instituted, but it is nearly always a long and discouraging process. Instead of being considered a curable disease, it should be thought of and fought as a preventable disease. It is much cheaper from the standpoint of time and money, and far more sure to prevent than to cure.

PREVENTION OF TUBERCULOSIS

The prevention of tuberculosis should start with the parents. It has just been said that tuberculosis is not inherited, so what can this mean? The father should be healthy so that no physical or mental weakness can be transmitted to the child. The mother should also be healthy, but in addition she should have constant care during her pregnancy so that nothing will happen to her that will so lower her strength that the tuberculous germs may be released and active tuberculosis develop. Should the mother by chance acquire the disease, either before or after delivery, the child must be removed from the source of infection at once. Should the germ be permitted to enter the delicate structure of the infant, disease may develop quickly and life cut short. The baby should not be permitted to come in contact with the mother, nor should she be allowed to nurse it.

No woman with active tuberculosis should become pregnant.

PROTECT CHILDREN FROM INFECTION



Precaution should be taken to protect all children, but especially the newly born, from contact with anyone who may by chance have active tuberculosis. The spray in coughing and the sputum from active cases of tuberculosis and the feeding of uncooked milk from cows that have tuberculosis is the most frequent way tuberculosis is spread. So, have the milk pasteurized, or boiled three minutes, unless you know the milk is from cows that are free from tuberculosis (this can be determined by having the cows tuberculin tested) and the family and all personal contacts of the child carefully observed to know that no active tuberculosis can approach the growing child.

He should not be taken into crowds and especially into homes, unless absolutely assured that there is no illness or chance of tuberculous contact.

Sun baths as given for rickets (see page 57) exposing the body to the direct rays of the sun and producing tanning of the body are thought by some physicians to be beneficial in the prevention of tuberculosis. Never give sun baths to a sick child except as the physician orders.

KNOW THE TRUTH

A physician trained to detect abnormalities can determine trouble long before symptoms develop, and of far greater importance and value is the physician's advice on how to keep well. Therefore, systematic routine examination of the child will disclose impairment of health and the mother may then be taught how to care for her child so that he may be made well and strong, and being trained to proper health habits will remain strong and healthy throughout life. This applies especially to the rapidly growing child, who is so often improperly fed and not given sufficient rest.

The early discovery of tuberculous infection is important for two reasons: One is that its source may be found and removed, and the other that if symptoms of disease are present they may be the more quickly relieved by appropriate treatment. Proof of infection can be shown by the tuberculin test earlier than by any other method. This is a harmless test when administered by those who understand its use. This test should be given to all babies and at regular intervals of about every six months so that the approximate time of infection may be learned. When a tuberculin reaction occurs x-ray pictures should be made to determine whether disease is present and the extent of it.

TREATMENT OF TUBERCULOSIS

The treatment of tuberculosis depends greatly upon the degree or activity present and upon the extent and nature of the lesions. Rest in bed in active tuberculosis is the foundation of the modern treatment

of tuberculosis. Of equal importance is good nourishing food, properly balanced, and an abundance of fresh air night and day. Sunshine, while of immense value in building up resistance and by that means preventing tuberculosis, may be a dangerous agent in active disease.

Sunshine should not be employed as a means of treating tuberculosis unless prescribed by the physician. There are positively no drugs known which cure tuberculosis. Drugs are given only to relieve certain symptoms. Never take drugs or give them to people with active disease unless ordered by the physician. In certain suitable cases, even in children, compression of the diseased lung by surgical means, such as artificial pneumothorax and phrenic nerve interruption, is of benefit and these methods are now being used quite commonly.

Solve the tuberculosis problem for your family and yourself by living right, eating properly, sleeping enough, resting sufficiently, and taking advantage of your physician's physical examination and advice at definite intervals. It will pay you well.

VENEREAL DISEASES

CONGENITAL SYPHILIS

Syphilis in a baby is usually the result of the disease having been contracted from the mother before the child was born. The child will be free of syphilis if the mother takes sufficient treatment during pregnancy, but she must start by the fourth month of pregnancy and take treatment regularly until the child is born.

Several thousand expectant mothers with syphilis give birth to children in Georgia each year. The physician can determine by a physical examination and a blood test if the expectant mother needs treatment. All babies born of syphilitic mothers should be examined to determine if the baby needs treatment. Usually good results can be obtained if treatment is begun in the first months of the baby's life.

Many babies with syphilis appear in perfect health, and a diagnosis can only be made by a physician. If the mother and the baby have syphilis, there is no reason why the mother should not nurse her baby. However, if the mother has open lesions, and the baby does not have syphilis, the child should not be breast fed.

GONORRHEAL INFECTION OF BABY'S EYES

Infection of the baby's eyes, due to the germs that cause gonorrhea, can be prevented if drops are put in the baby's eyes immediately after birth. This protects against those germs that might have entered the eyes during birth. Gonorrheal germs may get into baby's eyes any time after birth. Be sure that if any sign of inflammation in baby's eyes occurs, you consult a physician immediately because blindness is often a result of a few hours delay.

PREVENTABLE DISEASES

DISEASE	HOW SPREAD	HOW LONG FROM EXPOSURE TO ONSET	COMMON EARLY SYMPTOMS	SPECIAL METHODS FOR TREATMENT OR PREVENTION OR MODIFICATION	HOW LONG COMMUNICABLE	HOW SERIOUS	COMPLICATIONS
CHICKEN POX.	Material from skin eruptions or from lesions in mouth or nose of infected person.	2 to 3 weeks.	Skin eruption with fever.		Until skin and mucous membranes are free from scabs.	Not serious; confused with smallpox.	Very rare.
DIPHTHERIA.	Discharges from nose, throat, conjunctiva, vagina, or wound surfaces of infected person or of carrier. Infected milk.	2 to 5 days; occasionally longer.	Sore throat, croup, hoarseness, or fever.	Prevention with antitoxin or toxoid. Treatment with antitoxin.	Until organisms disappear from secretions or lesions of patient (or from nose and throat of carrier).	Very serious if not treated early.	Common, if treatment is delayed: Heart trouble. Paralysis. Respiratory obstruction.
DYSENTERY, AMOEBIC.	Stools of infected person. Milk or water or food contaminated by discharges from infected person or carrier. Flies.	Not known.	Blood in stools.		Until organisms no longer found in stools by microscopic examination.	Serious.	Abscess of liver.
DYSENTERY, BACILLARY.	Stools of infected person. Milk or water or food contaminated by discharges from infected person or carrier. Flies.	2 to 7 days.	Fever, diarrhea, blood in stools.	Treatment with polyvalent serum recommended by some authorities.	During disease and until stools are negative for organisms.	Sometimes very serious.	Rare.
ENCEPHALITIS, EPIDEMIC.	Probably discharges from nose and throat of infected person or of carrier.	Uncertain. Believed to be about 10 days.	Fever, drowsiness, paralysis of eye muscles (double vision).		Probably during fever stage of the disease.	Very serious.	Common: Tremors. Paralysis of various parts of body. Mental disturbances.
GERMAN MEASLES.	Discharges from mouth and possibly nose of infected person.	14 to 21 days.	Rash, slight swelling of glands at back of neck.		8 days from onset.	Not serious.	Very rare.
GONOCOCCUS INFECTION.	Discharges from lesions of infected person.	1 to 8 days; usually 3 to 5 days.	Discharges from eyes or vagina.	Certain medicines.	As long as discharge persists.	Very serious.	Not common.
HOOKWORM DISEASE.	Ground contaminated with stools of infected person. Infected water.	7 to 10 weeks.	Lassitude, malnutrition.	Treatment with tetrochlor-ethylene.	Until stools from infected person no longer contain worms or their ova (eggs).	Serious.	Common: Anemia.
INFANTILE PARALYSIS (POLIOMYELITIS)	Discharges from nose, throat, and bowels of infected person or of carrier. Infected milk (probably).	Uncertain. Believed to be 3 to 10 days; commonly 6 days.	Fever, fretfulness, vomiting, pain or stiffness of neck or extremities; weakness.	Early orthopedic care.	About 3 weeks after onset of disease.	Very serious.	Common: Paralysis of various parts of body.

PREVENTABLE DISEASES (Continued)

DISEASE	HOW SPREAD	HOW LONG FROM EXPOSURE TO ONSET	COMMON EARLY SYMPTOMS	SPECIAL METHODS FOR TREATMENT OR PREVENTION OR MODIFICATION	HOW LONG COMMUNICABLE	HOW SERIOUS	COMPLICATIONS
INFLUENZA.	Discharges from mouth and nose of infected person.	1 to 3 days.	Fever, headache, prostration, cough.		Unknown. Probably while fever lasts or at least 7 days from onset.	Serious.	Common: Ear infections. Pneumonia.
MALARIA.	Bite of Anopheles mosquito that has bitten an infected person.	Varies with type of infecting organism and amount of infection; 14 days in common variety.	High fever, chills, headache, vomiting. Sometimes convulsions.	Treatment as prescribed by physician.	As long as malaria organisms exist in blood.	Serious.	Common: Anemia (if treatment is inadequate).
MEASLES.	Discharges from mouth and nose of infected person.	8 to 15 days.	Fever, cough, watery eyes, running nose, rash.	Prevention or modification with serum or whole blood from anyone who is recovering from disease or who has had it at any time.	Until abnormal secretions (catarrhal symptoms) cease. Minimum period 9 days from onset (4 days before to 5 days after appearance of rash).	Serious, especially in children under 3 years.	Common: Ear infections. Pneumonia.
MENINGITIS (MENINGOCOCCUS) EPIDEMIC.	Discharges from nose and throat of infected person or of carrier.	2 to 10 days; commonly 7.	Headache, fever, vomiting, pain or stiffness on bending neck or back forward.	Treatment with serum.	Variable. While symptoms last and until organisms disappear from mouth or nasal secretions.	Very serious.	Common, if treatment is delayed: Deafness. Eye disorders.
MUMPS.	Discharges from mouth and possibly nose of infected person.	12 to 26 days; usually 18 days.	Swelling under jaw or in front of ear.		Until parotid gland is normal in size (until swelling has entirely disappeared).	Not serious in young children.	Rather rare in young children.
PNEUMONIA, BRONCHOPNEUMONIA (SECONDARY TO SOME OTHER DISEASE).	Discharges from mouth and possibly nose of infected person or of carrier.	Indefinite.	Fever, rapid breathing, cough, vomiting.		Unknown. Presumably until mouth and nose discharges no longer contain the specific germs in abundance or in a virulent form.	Serious.	Occasional: Pleurisy. Ear infections.
PNEUMONIA, LOBAR.	Discharges from mouth and nose of infected person or of carrier.	Short; usually 2 to 3 days.	Chilliness (in older children), fever, cough, rapid breathing, vomiting.	Treatment as directed by your physician.	Unknown. Presumably until mouth and nose discharges no longer contain the specific germs in abundance or in a virulent form.	Serious.	Occasionally: Pleurisy. Ear infections.
SCARLET FEVER.	Discharges from nose, throat, ears, abscesses, wounds of infected persons or of carrier. Infected milk.	2 to 7 days; usually 3 to 4 days.	Vomiting, fever, sore throat, and rash.	Treatment with serum in selected cases. Toxin recommended for immunization by some authorities.	At least 3 weeks from onset and thereafter until child is free from any abnormal discharge or open sores.	May be serious.	Common: Swollen glands. Ear infections. Nephritis.

SEPTIC SORE THROAT.	Milk from cow with infected udder or milk that has been contaminated by infected person.	1 to 3 days.	Sore throat, fever, prostration.		Probably during disease and during carrier stage.	Serious.	Occasional: Varied septic complications.
SMALLPOX.	Material from skin and mucous-membrane lesions of infected person.	8 to 16 days; occasionally as long as 21 days.	Fever, headache, backache, skin eruption.	Prevention by vaccination.	From first symptoms to disappearance of all scabs.	May be very serious.	Bronchitis. Pneumonia. Ear infections.
SYPHILIS, CON- GENITAL.	Acquired before birth.		Snuffles, skin eruptions occurring usually in infancy.	Certain medicines for both prevention and cure.	As long as open lesion exists on skin or mucous membrane.	Serious.	Not common if treated early.
TETANUS (LOCK- JAW).	Animal manure, soil, or street dirt in wound.	4 days to 3 weeks; commonly 8 to 10 days.	Rigidity of jaws, stiffness, convulsive movements of body.	Prevention and treatment by tetanus antitoxin.	Very occasionally communicable from wound discharges.	Serious.	Uncommon.
TUBERCULOSIS, PULMONARY.	Discharges from throat or lungs (spray or sputum) of infected person.	Variable.	Fever, cough, fatigue, failure to gain weight, or loss of weight.		Until lesions are closed.	Very serious.	Other forms of tuberculosis.
TUBERCULOSIS, OTHER FORMS.	Discharges from mouth, nose, bowels, bones or glands, or genito-urinary tract of infected person. Milk from infected cattle.	Variable.	Very varied, depending on site of lesion.		Until lesions are closed.	Serious.	Other forms of tuberculosis.
TYPHOID FEVER.	Stool or urine of infected person or carrier. Contaminated milk, water, shellfish, flies.	7 to 23 days; usually 10 to 14 days.	Fever, headache, listlessness.	Prevention with vaccine.	During disease and until stools and urine are negative for organism twice in succession.	Serious.	Occasional in young children.
UNDULANT (MALT) FEVER.	Contact with infected animals or animal products, particularly milk.	6 to 16 days.	Periodic character of fever, gradual increase in fever, pains in back and limbs, headache.		From onset of disease until organism is no longer found in urine: usually about 90 days but may be longer.	Not dangerous, but course is long.	Occasionally: Nosebleed. Genito-urinary complications. Pneumonia.
WHOOPING COUGH.	Discharges from laryngeal and bronchial mucous membranes of infected persons.	Commonly 7 days; usually within 10 days.	Cold, cough. Typical whoop begins about 10 to 14 days after onset of disease.	Inoculation for prevention or modification recommended by some authorities. Not effective in all cases.	About 4 to 5 weeks from onset. Most communicable in early catarrhal stage—7 to 14 days.	In infants and young children serious.	Common: Pneumonia and nutritional disturbances.

THE SICK BABY

CONSTIPATION



Constipation may occur in both breast and bottle-fed babies. It is due to a variety of causes, but can usually be overcome by training and change in diet without the use of drugs. (The correction of this condition often requires the treatment of constipation in the mother.)

Training to establish the habit of a regular daily bowel movement cannot be begun too early in infancy. Many mothers have this regulated after the second month, and it is a most important measure in the prevention of constipation. Constipation is also helped by plenty of water. The older the baby, the more important it is that he should drink water, or take it from a nursing bottle. Water should be offered to a young infant at least once or twice a day, a few spoonfuls at a time; a year-old baby should take $\frac{3}{4}$ to 1 cup a day. Drinking water should be boiled and cooled.

Fruit juices, such as orange and prune, will help very much in making a soft movement. Cereals, especially oatmeal and graham gruel, vegetables and fruit pulp are also laxative.

If an infant does not have a movement for 48 hours, it may be necessary to resort to temporary measures for relief.

Soap and other suppositories may be used instead of an enema. Neither enemas nor suppositories should be used over long periods of time, as irritation of the rectum may result.

An enema or injection may be given. For this purpose prepare warm water, and a bulb syringe holding from 1 to 3 ounces. To fill, squeeze the bulb, while holding the nozzle under water; when the bulb is released it will fill with water by suction. Let the baby lie on his back across the mother's lap, or on a table, having the buttocks somewhat elevated by means of a folded towel placed under the hips. This position will cause the water to run up into the bowel more readily and the towel will serve to catch any drip. Grease the nozzle of the syringe with vaseline. Squeeze bulb gently to expel air from nozzle. Lift the baby's legs with the left hand and with the right gently introduce the nozzle into the rectum for about 1 inch, directing it toward the back, and slowly expel the water from the bulb. This causes the baby little or no suffering if gently and slowly done, although if he is badly constipated the starting of the movement may be somewhat painful. When the liquid has been injected, remove the nozzle and press the towel against the rectum to retain the water until the baby can be placed over the chamber. As the water sometimes comes away as the nozzle is withdrawn, the mother's clothing should be well protected. Use 2 to 3 ounces of soapy water, and repeat it if necessary.



If the constipation is especially severe, 1 to 2 tablespoonfuls of warm olive or sweet oil may be used instead of the soapsuds. This may be given at night and retained.

Mineral oil, which is not absorbed but which acts as a lubricant of the bowel, may be given safely to young infants in a teaspoonful dosage once or twice a day. Milk of magnesia, one-half to 2 teaspoonfuls, may be given if preferred until the constipation is regulated. The magnesia may be put in the bottle feeding or given from a teaspoon just before the breast or bottle feeding. Castor oil should not be used as a laxative, as its after effect is constipating.

DIARRHEA

There is one disease of early life that, from its frequency and high fatality rate, deserves special mention.

Diarrhea, sometimes called summer complaint, is due to a specific germ in many cases. Diarrhea is a symptom and not itself a disease. It may occur any time of the year, but is more common in the summer time. It does not occur as often in the breast fed baby as in the bottle fed baby. It is much more fatal in young babies than it is in older children and in adults. It is more dangerous in the young child than is pneumonia.

There is belief, among some, that teething is a cause of diarrhea. This is not true. The germs of diarrhea enter the body through the mouth from unclean food, playthings, and dirty hands. Also, flies, and perhaps other insects, convey the germ of diarrhea. The young child is prone to put everything he handles in his mouth. The mother, or nurse, should have clean hands so that germs will not be transferred to the baby.

The disease is sudden of onset. Vomiting may occur often. Watery bowel movements, sometimes mucous and greenish in color, are frequent. When the symptoms develop, do not delay calling your physician. In the early stages the disease is more easily controlled. Delay is exceedingly dangerous. Do not try to treat the child yourself. Give your physician a fair chance by calling him early.

A FEW GENERAL SUGGESTIONS.

1. Boil all cooking utensils. Feed the baby clean food. Always wash your hands before caring for the child.
2. Always boil cow's milk before giving it to the baby.
3. Always boil water before giving it to the baby.
4. Feed the baby freshly cooked foods. Keep foods away from flies. Keep baby's food in a cool, clean place. Always boil baby's bottles, nipples, plates, spoons, and cups before each feeding unless they are kept in a clean place and protected against dust, flies, and other insects.

5. Fix baby's food yourself. Do not let strangers feed the baby. Do not leave the baby with people who will not care for it as you do at home.
6. Keep playthings clean. Do not let other children play with the baby's toys. Buy toys that can be boiled. Clean them with soap and water each day. If soiled, clean them at once.
7. Put the baby in a clean place when he is playing or sleeping.
8. Keep flies away from the baby. Screen the house. Swat the flies. Cover the baby's bed with mosquito-netting if necessary to accomplish this.
9. Keep the baby, even when well, under a physician's care. For those who have no physician, clinics are available in some sections of Georgia.
10. Protect yourself and your family by making sure that drinking water is safe, and by having a sanitary toilet.
11. Keep children away from sick people. "Keep the baby at home" is a safe rule. Do not expose the baby to any catching disease. All persons, any person, whether sick or well, may give the baby dangerous germs.

Should the baby develop symptoms of diarrhea, the doctor should be called. If no doctor is available, keep the baby in bed in a cool, quiet place. Stop all food for 24 hours. Give the baby about two or three tablespoonfuls of boiled water every hour. Do not offer foods if baby is vomiting. Give baby orange juice mixed with water. Baby should take all the fluids he can. When food can be taken, begin with boiled skimmed milk with an equal amount of water, about every four hours. Start with a small amount of milk at first and increase a little each feeding.

ECZEMA

Cleanse affected parts with olive oil, avoiding water, soap or other irritating substances. In eczema the diet may be at fault.

SORE THROAT

Indicated in infant by difficulty and pain on swallowing. Sore throat may be diphtheria, an infectious and dangerous disease. Don't try to treat sore throat yourself. Call your doctor and let him determine the cause of this condition. To prevent diphtheria, see that your baby is given alum precipitated toxoid at six months of age.

An older child may gargle the throat or have it sprayed with a mild antiseptic solution, such as one-fourth teaspoonful of baking soda and table salt to one cup of warm water. Sterilize drinking cup, tableware and everything that comes in contact with the secretions of the nose and mouth. All discharge coming from a child with sore throat, to prevent spreading of infection, should be burned or otherwise destroyed.



VOMITING ACUTE

May be due to acute indigestion, infectious diarrhea, or general infectious disease, scarlet fever, or other acute eruptive diseases. Stop giving food and water. Habitual vomiting may be caused by too rapid feeding, feeding in a reclining position or not holding the baby and bottle properly; laying the baby down too soon; rough handling of the baby too soon after feeding; wrong kind of food, particularly too much fat, sugar or curd in raw milk; too large a total quantity at a feeding; too short intervals between feedings. Regulate faults of feeding. If vomiting is persistent consult a physician.



FIRST AID

FIRST-AID CABINET

A properly equipped first-aid cabinet is a necessity in every home and imperative where there are small children. First aid remedies should be placed in a small cabinet out of reach of children's fingers. Supplies should be replaced as often as necessary. The following list will contain everything that is needed for ordinary emergencies:

- Two-ounce bottle of glycerine
- One-ounce bottle each of tincture of iodine and peppermint
- Quarter pound boric acid
- One tube each of zinc ointment and vaseline
- One-half pint each of olive oil, milk of magnesia, and mineral oil
- One medicine dropper
- One clinical thermometer
- Bicarbonate soda
- One hot-water bag
- One fountain syringe with rectal tip
- One bulb syringe
- One small-size roll surgeon's adhesive plaster
- One small-size package antiseptic gauze
- One small-size package sterile absorbent cotton
- One-half dozen assorted sizes sterile bandages
- One card safety pins
- One package needles
- One package toothpicks
- One nail or hand brush
- One small pair scissors
- One bottle green soap

In addition to the above supplies, the first-aid cabinet should contain a First-Aid Manual—(see Red Cross text book or any standard manual). Every woman, especially one having the care of small children, should learn the use of the clinical thermometer and bed-pan, to give an enema, to massage or to bathe and dress a patient in bed, to bandage and to give first aid in emergencies.

SICK ROOM

Every house should contain one sunny bedroom with plain or washable walls and furniture, without carpets or draperies, that can be used as an isolation sick room in case of illness or emergency.

FIRST AID REMEDIES

(ARRANGED ALPHABETICALLY)



BURNS OR SCALDS

For other than small and light burns, send for a physician. The child may die from shock. Remove clothing by cutting where necessary. Avoid dirty ointments or oils because of the danger of infection. Apply to burn as quickly as possible several layers of soft cloth wet with strong solution of baking soda or strong tea. Keep air away from burns. As soon as pain is allayed, apply zinc oxide ointment and bandage.

COLDS

Rest in bed so long as there is fever. Give less food and more water. Open the bowels freely with a laxative. Drop few drops mineral oil up nostrils every few hours. For older children, spray nose and throat freely with oil spray or one-fourth teaspoonful each baking soda and common salt in one cup of warm water. For complicated, persistent or repeated colds, improve hygiene to build up child's resistance, and apply to physician for treatment.

CONSTIPATION

The diet or habits are at fault. There may be too much fat in the diet, too much or too little sugar, or not enough fruit and green vegetables. Do not give laxatives habitually; they cause constipation. Send the child to stool at a regular time each morning. In case of persistent constipation a physician should be called. Begin early to form proper habits of regular bowel movements (See pages 66 and 67).

CONVULSIONS

Call a physician. Undress and place child in tub bath, temperature 98 degrees F., (body temperature), for ten minutes. Always test water with your bare elbow. Keep cold cloth around child's head and neck. If convulsions are caused by eating improper food, give prompt enema followed by laxative. Keep child in bed until he recovers from shock.

COUGH

Avoid cough syrups, which are dangerous for children. Plain honey or stewed fig juice is soothing. Apply vaseline in nose at night and cold compress or mild mustard to throat and chest. Ask physician to find cause and follow his prescription.

CROUP

A child subject to repeated attacks of croup should be examined by a nose and throat specialist and necessary treatment given to improve his general health. Do not take any chances but be sure that the croup is not diphtheria. A physician should be called at once. Treatment for diphtheria should never be delayed for the reason that early treatment with antitoxin is most effective in the early stages, and the dose can be



much smaller than if neglected. If breathing is difficult, give warm salt or soda water emetic to induce vomiting. Apply heat to the chest for ten minutes, followed by cold compress. Ice collar or ice cold compresses to the neck will often relieve simple croup. If severe, prepare a kettle or some vessel from which the steam can be conveyed to the covering or tent over the baby's head. (Two teaspoonfuls of compound tincture

of benzoin to one quart of water is sufficient amount to obtain relief. Increase proportionately if larger amount is needed.) Add to the boiling water two tablespoonfuls of compound tincture of benzoin. A very good way to have continuous steam is to place the kettle on a one burner oil stove, gas stove, portable electric hot plate, or some portable method of heating the water by the bed side. An extension spout should be put on the kettle. Where an open fire is convenient the kettle can be placed on the fire with an extension spout of tin or iron. Electrical contrivances for this purpose can be bought from stores that deal in articles of this sort.

Croup which develops suddenly in a child previously well is not likely to be a serious matter. On the other hand, croup which develops slowly in a child previously ailing, may be due to the formation of a diphtheritic membrane in the wind-pipe. No time should be lost in calling a doctor.

CUTS AND ABRASIONS

A break in the skin should be cleaned thoroughly with boiled water, mild soap, and a piece of freshly boiled cotton or linen cloth. The injured place may be painted with fresh tincture of iodine. After a few minutes, wash the iodine off with alcohol and apply sterile bandage. Never seal a scrape or a cut with collodion nor with adhesive plaster.

A severe cut that enters the deeper tissues or a bone or one of the larger blood vessels should always be treated by a doctor.

Moderate bleeding can usually be stopped by pressure directly over the injury. If bleeding is profuse, apply pressure by means of the fingers or a tight bandage (tourniquet) above the injury, thus compressing the large blood vessels. Pressure must never be applied so tightly or so continuously that the child's hand or foot will turn blue or become cold and numb.

Deep wounds with small openings, such as those made by nails or splinters of wood, are specially dangerous because of dirt or germs that are carried deep into the tissues and can not be washed out. This is also true of wounds from firecrackers or cap pistols. Many cases of tetanus (lockjaw) are the results of such injuries. They should always be treated by a doctor, who will give tetanus antitoxin, if necessary.

DOG OR CAT BITE

Send for a doctor. Do not kill animal but confine and observe for symptoms of rabies. Apply iodine at once; notify your city or county commissioner of health, or if you have no health department in your county, have your physician report the circumstances to the Georgia Department of Health. Full directions will be sent you. If dog is undoubtedly mad, wound should be mopped out with a 40 per cent solution of formaline or formaldehyde; do not allow this medicine to touch the skin, but apply to raw surface only. Have physician wire or write Georgia Department of Public Health Laboratory, Atlanta, Georgia, at once for vaccine treatment.

DROWNING

Get a doctor as quickly as possible. Immediately suspend the child's head downward. Pull the tongue forward so that the water can run out of windpipe. Lay the child on his stomach and gently lift him by placing the hands under the abdomen, lift and lower the body regularly about 18 times per minute. The tongue must be kept drawn forward. After you are sure the water is out of windpipe, body can be turned on its back. Keep up the artificial respiration. Do not get excited. Keep working for hours if necessary. Wrap the child in warm blankets. Rub the limbs firmly but gently from the extremities toward the body. Do not be rough. The thing you must do is to get air into and out of the lungs. Compressing the lower ribs is a good method. Slowly raising the arms from the sides over the head and bringing them against the sides again will cause air to go into the lungs and is preferred by some. Keep trying.

After respiration has been established, put to bed with warm blankets and as soon as patient can swallow, give aromatic spirits of ammonia, fresh air, warm drinks, quiet and rest.

EARACHE

Symptoms of earache in infants: crying, turning head from side to side, trying to put hand on aching side. Earache very frequently accompanies or follows a severe cold or an attack of tonsilitis or other infectious diseases, and is caused by an extension of the inflammation to the middle ear. This may result in deafness or mastoid abscess. Apply heat, hot water bottle, or dry salt heated and placed in a sack or sock. Warm and drop into the ear a solution made with glycerine and water, half and half. To this add three or four drops of 2 per cent solution of carbolic acid. (To make a 2 per cent solution, add nine drops of carbolic acid to two tablespoonfuls of sterile water.) Never neglect earache. Have the child examined by a doctor, and if necessary by an ear specialist.

EYES (SORE OR INFLAMED)

Sore eyes in a new-born baby are reportable by law. Call your doctor. While he is coming bathe eyes hourly with a saturated solution

of boric acid. Never use the same cotton or cloth for both eyes; use a fresh swab for each eye.

Sore eyes of new-born babies have been found responsible for such large percentage of blindness that the Georgia Legislature in 1918 passed a law requiring any person in attendance at childbirth to apply 1 per cent solution silver nitrate to the eyes of the new-born. It is the parents' duty to see that this is put in the baby's eyes as soon as possible after the baby is born.

FAINING

Place child with head lower than rest of body. Give fresh air. Wipe face with cool water. Rub extremities toward heart. If fainting occurs frequently consult physician.

FEVER

Fever is not a disease but a symptom. Undress and put child to bed. Reduce diet and give plenty of drinking water, fruit juices and ices if desired. Flush out lower bowels with enema of soap and warm water. Apply cool cloths to head and neck or give cool or tepid sponge baths.

FOREIGN BODY IN EAR

Do not attempt to remove by poking. Put in a few drops of warm alcohol to kill if it is a live insect. If a bean, pea or anything of like character, do not put anything in the ear at all. Lay the head with the affected ear down and wait for the doctor, or take the child to the physician.

FOREIGN BODY IN EYE

Tears may wash it out. Do not rub the eye. If visible, remove with corner of clean handkerchief. Wash eye with saturated boric acid solution. For injury apply cold cloths wet in saturated solution of boric acid or normal salt solution (made by adding one level teaspoonful to one pint of water) and consult your physician or eye specialist. One or two drops of castor oil into the eye will very quickly relieve the pain.

FOREIGN BODY IN NOSE

Do not attempt to remove by poking. Let the child blow the nose while holding the opposite nostril shut. If it fails call the doctor or take the child to his office.

FOREIGN BODY IN THROAT

Do not get excited. Do not push farther in throat by trying to extract with the finger. Hold the child up by the ankles, head downward, and slap on the back. Then try reaching the obstruction again, if necessary. If the article has been swallowed give child a quantity of soft bread. Do not give laxative. Watch the stools for a few days. In most cases a foreign body will be passed without trouble.

FROSTBITE

Keep child away from heat. Removal to warm room should be made with great care. For severe frostbite or freezing call a physician.

HEADACHE

Find out and treat cause. May be due to constipation, indigestion, eye strain, excitement, fatigue, or overheating. Apply cold cloths to forehead and back of neck. Inhale camphor, menthol, ammonia or smelling salts. Avoid headache remedies. They are exceedingly dangerous for children.

HOLDING THE BREATH

Occurs after great excitement, crying or exposure to cold air. Dash cold water in face. If frequent, consult physician.

IRRITATED BUTTOCKS

The best remedy is Carron oil applied to the buttocks when changing napkins. Parched flour may be used or zinc oxide ointment.

NIGHT TERRORS

Probably caused by indigestion and constipation. Give the child a careful diet, light evening meals, healthy outdoor life, avoid excitement, especially just before bed time. If continued or frequent consult physician. Examine for enlarged tonsils, adenoids, decayed teeth, genital adhesions, tuberculosis or worms.

POISONING

People are often careless in leaving medicines containing powerful drugs on a table or in a drawer within easy reach of children. Tincture of iodine, mercurochrome, bichloride of mercury, and many other substances used as disinfectants are poisonous if swallowed. Children have been known to swallow fatal doses of such drugs.

Perhaps even more common are accidents that happen with poisons not used as medicines. Lye causes a type of burn in the mouth and throat that may result fatally. It is shocking to find how frequently a can of lye is left on the floor in the bathroom or kitchen and how frequently children try the experiment of tasting it. Wintergreen flavoring extract, alcohol (both grain and wood alcohol) and kerosene have been swallowed by children in fatal quantities. Children seem especially tempted to taste poisonous powders such as insect powder or rat powder. They will chew matches and bits of fireworks which contain a dangerous amount of phosphorus. Many children chew the paint on toys, play pens, and cribs, and chronic lead poisoning may result from such habits.

Stearate of zinc or powder containing it is often used in the homes of otherwise careful parents, who do not realize that if a child breathes this powder into his lungs he will probably develop a very serious form of pneumonia. If such a powder is advised by the doctor, buy it

only in cans that have a self-closing cover and keep it out of the reach of children.

Gas from leaky fixtures and from automobile exhausts causes many unnecessary deaths. Never neglect a poorly fitting gas fixture. Never let a motor run in a closed garage.

Avoid the use of poisons if possible. Never leave poisons within reach of young children. Teach children not to put things into their mouths.

If a child accidentally swallows a pill or anything else that might possibly be poison, a doctor should be called at once or the child should be taken to a hospital. While waiting for the doctor try to make the baby vomit. Warm water may make him vomit, or warm water with common salt or mustard dissolved in it—a teaspoonful of the salt or mustard to a glass of water. Give him as much as he will drink. Tickling of the back of his throat may make him vomit.

POISON WOUNDS

Insect stings or mosquito bites. Remove sting and apply spirits of camphor, ammonia or wet baking soda.

SNAKE BITES

Wound must be made to bleed freely and poison pressed out. If venomous snake, tie a handkerchief or bandage above wound to stop progress of the blood and keep poison out of general circulation. The handkerchief should be loosely tied, giving room to insert a pencil, stick, pocket knife, or anything of like character to serve as a handle to twist and slacken the constriction. The circulation of the blood should not be cut off too long at the time but allowed to flow for a few seconds every few minutes. Care should be taken not to injure the flesh by making the tourniquet too tight. Send for a doctor. Incise deeply and freely with penknife or corner of a razor.

SUNBURN

Prevent as much as possible by shade and by protecting the skin with cold cream before taking the child into the sun or wind. Avoid use of water on a sunburn. Apply sweet cream, almond lotion or cold cream.

SUN PROSTRATION

Characterized by prostration, flushed face and vomiting. Requires rest in cool place and lukewarm sponging. Apply ice cap or cold cloth to the head.

TOOTHACHE

Pack decayed tooth with a bit of absorbent cotton with oil of cloves. Consult dentist always. No tooth should be permitted to advance to the point of aching. Early and regular attention should be given the teeth.

HABITS AND TRAINING



Habits are the result of doing the same things a great many times in the same way at the same time. If a small action is repeated often enough, the person does it without thinking, and it becomes a habit. If the habit continues for a long time, it may become very difficult to break.

It is best that a baby should have only good habits. Sometimes he learns or some one teaches him a bad habit. These bad habits should be corrected as soon as possible, or before they become difficult to correct.

One of the bad habits which is taught the baby is that of sucking a pacifier or other object. The baby does not teach himself this disgusting practice, and he should not have to suffer for it. The pacifier is never really clean and may carry germs of disease to the baby's mouth. All pacifiers should be destroyed immediately and no such object ever should be put into the baby's mouth under any circumstances.

Thumb sucking is probably not of great importance. Usually can be prevented if child has proper bed cover from infancy on.

CONTROL OF BLADDER AND STOOL

Some babies may be taught to control the bladder and stool during the day by the end of the first year. To do this, it is necessary to put the child on the chamber at regular intervals and immediately after each meal, and on arising and going to bed.

BED WETTING

To punish a child for persistent bed wetting is cruel. A child should not wet the bed after 2 years of age. If he does, a physician should be consulted. Many a young person has had his childhood spoiled by being a victim of this habit which, if not cured while he is young, may persist even to his old age.

To cure bed wetting, first ask a physician to make a thorough examination of the genitals and the urine to determine whether there is some condition which needs to be corrected; also to examine for adenoids, enlarged tonsils, decayed teeth or other source of nerve irritation. Any physical defects discovered should be corrected.

Limit the liquids taken at the last meal at night. Take away the pillow and raise the foot of the child's bed several inches. Provide an alarm clock and set it twice each night, once at about 10 P. M. and again at about 2 A. M. Get child thoroughly awake and have him get up and empty the bladder. This treatment should be continued every night for a month or longer until the habit of voluntary control is substituted for the involuntary action. A small reward for success is a great aid in the cure. Much of the treatment is psychological.



CRYING

A child needs a short period of crying every day to develop his lungs, but the habit of crying to be rocked, or whenever denied anything, should be corrected promptly. A baby can be broken successfully of this habit by letting him cry it out. Once or twice will suffice.

LEARNING TO WALK

The average child begins to want to stand at about the tenth month and to walk from the twelfth to the fourteenth. Earlier efforts at standing and walking should be discouraged. A child never should be urged to stand and walk, especially if he is heavy. He will want to stand and walk of his own accord as soon as the little legs are strong enough to bear his weight; neither encourage nor restrain.

LEARNING TO TALK

A child learns to talk by hearing older people and other children speaking. At first, speech to him is but a jumble of sounds as a foreign language is to us. Later, he begins to learn that certain sounds mean certain people or things or movements.

It is very necessary that he should hear these words and sounds correctly spoken and that when he begins to talk he should hear correct English. Do not use the so-called "baby talk" in speaking to a child; otherwise he will learn it and other improper methods of speech, only to have to unlearn them later with much effort.

TOYS

Since a baby wants to put everything into his mouth, his toys must be those that can be used safely in this way. They should be washable and should have no sharp points or corners to hurt the eyes. Painted articles, or hairy and wooly toys, also toys having loose parts such as balls or objects small enough to be swallowed, are unsafe and should never be given a small child.

A baby should never have too many toys at one time. A handful of clothespins, or a silver teaspoon or tin cup, will please just as much as an expensive doll or other toy. It is a good plan to have a box or basket in which to keep empty spools and other household objects with which the baby may play.

MORAL TRAINING

A little child does not know right from wrong until he is taught by older persons. He follows his own fancy and lets his little hands and feet do mischief, not knowing that he is doing anything which will cause others or himself to come to grief. For this reason, older persons must be ready to guide the baby and teach him the right method of behavior.

But that does not mean that he should be forbidden continually to do this or that or the other. A child should have from very early infancy the opportunity of choosing to do things himself. If he is not



allowed to do this, he won't know how to reason and choose for himself when he grows older and is obliged to do it.

On the other hand, it is necessary for a child to learn obedience, and a wise mother will train her child to obey; not, however, to obey the command "because I told you to do it" but to obey because it is right and therefore a pleasure to do so.

Harsh treatment or punishment has no place in the proper upbringing of the baby. If a baby's inclinations lead him in the wrong direction, some one must be at hand to guide him into another and better one and to turn his eager interest and his energy toward something that will amuse but not harm him. This is the golden rule for the training of babies and one which applies to the training of children of all ages. This does not mean that type of indiscreet indulgence which often produces an unhappy child.

Usually there is some reason for the naughtiness of babies. The babies who are fussy, restless and fretful are usually either uncomfortable in some way because they have not been fed properly and taken care of, are sick, ailing, or have been indulged too much. On the other hand, babies who are fed properly, who are kept clean and have plenty of sleep and fresh air, and who have been trained in regular habits of life have no cause for being "bad" and therefore are "good".



MENTAL HYGIENE

What a child sees and hears during the first few years is one of the strongest influences of his mental life. The earliest impressions are the strongest. Long before the baby speaks or gives conscious evidence that these are registering lasting impressions upon him, they are impressed indelibly on his extremely sensitive brain, and permanently color and influence his subsequent thoughts and actions.

The baby is extremely susceptible to and is strongly influenced by his environment. His nervous system reacts in no uncertain way to emotional storms and other forms of disharmony. He responds to peace, quiet and harmony. It is this latter environment which gives him the very best chance for the development of a strong physical and mental personality.

The mother or the nurse, as the case may be, is the one to whom the young child is most closely attached and it is the mother or nurse whose personality, character, habits of thought and action are most strongly impressed upon the child in her care. From her he not only gets his vocabulary, but his social, religious and moral ideas. These ideas form the basis of his opinions, prejudices and habits of thought. The mother who intrusts her child to a nurse cannot exercise too much care to obtain an intelligent, cultured woman of desirable character and personality. The present practice of employing a skilled worker to care for the automobile, or to look after the father's business, and to engage a convenient, immature and ignorant girl to "mind the baby" will be revised when the importance of this is fully understood.

Mental hygiene is inseparable from physical hygiene. Unhealthy mental habits will react unfavorably on the physical health, as a faulty diet and lack of regular systematic care will result in unfavorable mental and nervous reactions. A good mind in a sound body can only result from intelligent attention to both.

THE FIRST BIRTHDAY

As the first birthday approaches, the mother will realize that she no longer has a little baby. Instead she will face a very different situation from the care of a helpless infant, and problems which are much more complicated. Yet if the foundation of regular and proper habits has been laid during the *first* year of life, she can continue to watch and safeguard the baby's development unhindered by previous errors in body and character building. If regular habits have not been established the mother can do nothing better than to begin at once, for the longer proper training of a baby is delayed the more difficult the task becomes for both parent and child.



If it should happen that regular habits are never established during babyhood and childhood, the individual will have to suffer that handicap throughout his entire life.

NEW FUNCTIONS

During the second year the child develops many new functions. With each new function there is possibility of physical defect or error appearing. A most excellent safeguard against preventable defects is to have the child thoroughly examined, at least once a year, by a physician and remediable defects corrected while this may still be done cheaply and easily.

FIRST OF SENSES

Touch—The sense of touch is one of the first of the senses to develop and remains the strongest throughout life. Adults learn most easily about those things which they can touch and handle. At this age a baby can learn in no other way. He is just beginning to find himself in the strange wonder world about him. For this reason he anxiously attempts to touch and to experiment with everything which is within reach of his busy little fingers. To forbid him to learn and to punish him for following his natural instincts in the search for knowledge is a great injustice to him. Breakable articles and things not for babies should be kept out of reach.

DEVELOPMENT OF MUSCLES

For the development of the smaller groups of muscles he should play with small simple toys. By handling them, experimenting with them, trying to "do as mother does" he obtains control of the untrained little hands and fingers. Unpainted building blocks, clothespins, spools, spoons and tin cups make ideal playthings for him.

The baby develops the larger muscles by pushing, climbing, pulling and lifting. If left free to play unhampered by clothing and restrained only from harm he will get sufficient exercise of his own accord. By experimenting with things he can touch he becomes familiar with nearby objects. As yet he has no sense of distance and will hold out his hands for the moon.

By experimenting with everything which he can touch and handle a baby begins to develop reason, but as yet cannot make himself remember. Each new experience, like finding his great toe or the back of his head, adds to the joy of life, and he experiences disappointment when the joy is withdrawn. It is this desire for pleasure which causes him to strive to assert his will power.

OBEDIENCE EASILY TAUGHT

During this year the baby is shy with strangers, but very affectionate with those in the home. It is through a desire to please them and to win their approval that he can *easily be taught obedience*, provided he



is required to learn a few simple regulations and to follow these without exception. It is a serious mistake to require obedience to a multitude of small details of conduct, but the few simple requirements like going to bed on the minute or remaining within the yard enclosure should be stated clearly and adhered to closely. For the parent to be moved by entreaty or tears to deviate from these fundamental requirements of regular and safe habits is to encourage the child in coaxing and teasing, also in willfulness and temper.

FUNDAMENTAL TRAIT

Failure to require *obedience* also makes it more difficult for the child to learn *self-control*. From lack of this *fundamental trait of character*, self-control, may spring fear, jealousy, temper, nervousness, mannerisms and a number of bad habits. For that reason a child should never be permitted to persist in sucking his thumb or finger, to indulge in fits of screaming or outbursts of temper, or other bad habits.

HOW TO GOVERN YOUR CHILD

The child may best be taught gentleness by soft speaking and by calmness of manner; politeness by never failing courtesy to him as well as to adults; sympathy by expressions of interest and pity, avoiding emotional excitement; unselfishness by always accepting his offer to share a treat, and by example; orderliness by having a box or drawer for his toys and encouraging him *always* to put them away; obedience by gentle firmness, and never by impatient demand or catching him up and "putting him into his place" or by jerking him or striking him in anger. The latter is a very successful way of teaching him how to display temper.

AN IMITATOR

It is useless to try to teach a very young child by telling him to "do as I say". At this stage he has very little memory, still less of reason, and no power to understand a moral precept and to express it in his conduct. He is a creature almost wholly of imitation. He learns to do by imitating what he sees and hears about him. Thus the language he uses, his treatment of others and his manner will reflect his home environment as a mirror reflects what is held before it.

The child's mind, however, *is more than a mirror*—it is more like a sensitive photo film or a stone tablet upon which a record is being engraved. The record may not always be what the parents would have it, but it will faithfully portray the child's training and experience.

Have your child given a physical examination on his birthday and see that remedial defects are corrected.

THE SECOND BIRTHDAY



At the second birthday a child ordinarily is running about; he can repeat a number of words; he can obey simple commands and imitate movements. But he is still in need of the same care in regard to his food, sleep, exercise and habits that he has been having up to this time.

CORRECTION OF EVIL IMPRESSIONS

During this year he will greatly increase his vocabulary so that by the third birthday he can talk with ease and distinctness. If a language other than English is spoken in the home, this is the best time for him to acquire it. During this year it is most essential that he hear only good English and that errors of speech, "baby talk" and slang expressions be corrected. Profane and *vulgar words* are certain to be *heard and* repeated even by the most carefully reared child. To punish a child for using them or to describe to him how "very bad" they are is sure to impress them so firmly on his mind that they will never be forgotten and they will be remembered for use on future occasions. The simplest method of dealing with vulgar expressions is to pretend not to hear them. In a few days at most they will be forgotten for the present.

TO CURE NAUGHTINESS

In the same manner, ignoring the so-called little tricks or naughtiness of children is one of the best methods of curing them. The child's desire for affection and approbation is very strong. His knowledge of right and wrong is not yet developed. It rests mainly in the approval of others. *His desire for approval is the strongest incentive* the child has for obedience and for good behavior. Sometimes during the second year his very strong concentration on self leads him to indulge in contrariness. If left alone he will soon outgrow it.

IMAGINATION BEGINS

In this year the play instinct begins to be associated with imagination. Blocks are no longer blocks; they are houses, and dolls are babies. Self-directed play, where the child evolves his own games, affords a wonderful stimulus to the imagination which has been called appropriately "the fairest gift of the gods". The child at this age loves to hear tales of himself woven into fairy tales, and seemingly never tires of the same stories over and over again. These fairies of the imagination are real to the child who cannot as yet distinguish between truth and fiction. *Stories which inspire fear or other undesirable emotions* are to be avoided for children.

CARE OF TEETH

About this time a child can be taught regular use of the tooth brush as a part of his morning toilet. The condition, usefulness and beauty of the permanent teeth depend largely on the care that is given the baby ones.



Proper care of baby teeth is very important. The child should be taken to the dentist before decay appears. Much future trouble can be prevented if the dentist repairs the small pits and fissures found in baby teeth. Visits to the dentist should be repeated at least every six months.

DOES NOT KNOW TRUTH FROM FALSEHOOD

The power to know truth from falsehood is something which is acquired. It is something which the child must learn. At this age he frequently tells an untruth when he is asked questions, particularly the kind that might be embarrassing, because he feels that he must say something. *If he is punished he doesn't know what for*, which is manifestly unfair.

PROPERTY RIGHTS

During this year the child also develops a strong sense of *property rights which need be respected*. At the same time he must be taught to respect the property rights of others. He will *not learn* this of his *own accord*, nor until he *has been told a great many times*.

MEMORIZING SONGS AND POETRY

Children who are particularly mentally alert will pick up snatches of songs and verses of poetry and prose which they love to repeat, charmed no doubt by the rhythm. It is well enough to let them learn what they will of their own accord, but it is a *serious mistake* to *teach* such young children to *memorize long verses* or to encourage them to "show off" by reciting and singing to admiring friends and relatives. Apparently at the time, it does the child no harm. But the *foundation for nervousness* later on is laid in this manner.

THE THIRD BIRTHDAY

The third birthday will make a greater change in the child than either of the other two. While still needing the same careful oversight as to regularity of habits and care, he now begins to recognize himself, not only as a person, but he can appreciate himself in relation to others. The strictly "myself" stage is passing and the social age is beginning. Through his recognition of himself in relation to others, and the respecting of others' rights as he would have them respect his, the three-year-old can be taught the little *social acts of courtesy*.

THE SOCIAL AGE

The normal child of three talks distinctly, knows his own name and the names of members of the family, recognizes himself in a mirror, enumerates objects in a complex picture and attempts to describe them. It is well for him to know his street and house number, his father's occupation and other means of identification, should he stray away or get lost.

OBEDIENCE EMPHASIZED

The same desire for affection and approbation still exists, impelling



him to obedience. He obeys now from choice and motive, and also because he wants to do the thing asked. Obedience needs to be emphasized strongly this year for the sake of safety, but obedience through fear is sure to result, sooner or later, in a revolt against authority. Also a child frequently *is made to become a liar through fear of punishment*. The independence of boys and girls and the wildness of some youths who

cannot be restrained by their parents are as likely to be caused by insisting upon a strict obedience through fear of punishment as by foolish indulgence and little or no restraint. The most fortunate child is the one *who is taught obedience through his trust in his parents*, and most fortunate are the parents whose children are loyal to them through love. *The child may be made to obey, but he cannot learn obedience and loyalty through fear.*

DIFFERENCES OF SEX APPEAR

The child of three *learns caution* by an explanation of the lessons of experience, such as accidental hurts. He develops courage by overcoming timidity and fear. There are fundamental differences of sex which are apparent even at this early age, but they are not such as need to interfere with the training in the fundamental human virtues of gentleness, loyalty and courage. A boy is trained to be a little man. In the same way a little girl needs to be a little woman, and not because she is a girl allowed to become a selfish, willful little "cry baby". The *boisterous* boy needs the *feminine grace of gentleness* and the *timid girl* the *manly virtues of courage* if both are to develop to the fullest possibilities of their manhood and womanhood.

CURIOSITY AWAKENS

By the third year the curiosity is aroused and the child is stimulated to ask endless questions. The appearance of the *curiosity* is the sign of the awakening of *another faculty to aid in the endless search for knowledge*. The three-year-old still learns by imitating, especially by watching and helping mother. In this way he should learn partly to undress and dress himself, to feed himself correctly, to put things away, and to become handy with the use of blunt scissors and other tools.

REGULAR HABITS MANIFEST

The child of three frequently goes to the toilet by himself. If he always has had regular habits probably he will go about the same time each day, usually after the morning meal. It is necessary, however, to observe closely and to know whether or not his bowels have moved each day and whether the stool is normal. Any difficulty or distress in voiding the urine should have prompt attention. Bed-wetting after the age of three needs to be treated by a physician.

IMPORTANCE OF CLEANLINESS

The same watchful care that was given them when they were babies needs to be given the private organs of boys and girls as they grow older. The presence of secretions which are not thoroughly removed at the bath quickly sets up an irritation in girls. Secretions and moisture caused by voiding the urine will also cause an irritation for a boy if the foreskin is not drawn back and cleaned thoroughly. When this cannot be done, or whenever any inflammation develops in either boys or girls, they should be taken at once to a physician. A neglect of these organs may cause serious nervous disorders, and irritation may lead to the habit of self-abuse. *The child should never be shamed nor be told that there is anything that is not clean about his body.* Instead he should be taught to be proud of it and always to keep it clean and to care for it.

THE FOURTH BIRTHDAY

Before the fifth birthday a child is likely to awaken to the fact that there are babies in the world; they were not here before, and consequently they must have come from somewhere. Why the asking of such a simple question should throw the household into a panic, or why parents and friends should feel called upon to invent lies, is one of the unanswerable riddles.

ANSWER QUESTIONS TRUTHFULLY

So before a child asks these questions the mother needs to prepare herself with the proper answer, and she needs also to be thankful that he comes to her instead of going to others. If his child mind is once allowed to become polluted with false or vulgar ideas of sex the impressions never will be eradicated. On the other hand, a *child* who has always been told the truth, and who *knows that he can always go to mother or father for anything he wants to know, will be safeguarded* from having his unsatisfied curiosity lead him to strange and maybe unfit sources for information.

SOME MORE MATURE THAN OTHERS

Some children at four are more mature than others, so that whatever is explained to them must be based on the child's ability to understand. But most children of four know about eggs and the hatching of chickens and birds. The simple statement that he came from an egg (ovum) will be sufficient for the time being. Later he will want to know where the egg came from. Then the beautiful story of the nest in mother's body, where he lay until he was strong enough to come out, will fill his soul with wonder and admiration. *Mother will be the most wonderful person in the world, and the child's love and admiration for her scarcely will be exceeded by her own love for her child.*

NATURE STUDY

A child may have his curiosity aroused by the appearance of young pets. Either way, this year is an excellent time for some home nature study, using the simplest material at hand. There are the many kinds of plant babies to be studied, or the bird babies or puppies or kittens. From a study of these specific babies the child eventually grasps the general concept of the plan of reproduction—"that everything has babies". Having babies then is no mystery to him. He knows all about it, and older children or impure minded adults cannot shake his faith in his own knowledge or fill his mind with vulgar falsehoods. He will not seek nor accept from such sources of information, for he already knows the truth.

NO CONCEPTION OF LOVE OF MEN AND WOMEN

As yet the child has no conception of the love of men and women, and to try to explain it to him would only confuse him. In his mind the father's function is to watch over and protect the mother and her babies. But in a few years he will be ready to understand it, especially a child having pets, or living where he can observe closely domestic animals. The knowledge of the father's function in creating life may be taught him easily through the same nature-study methods. There are many good books written on this subject both for parents and for children. If you will write the State Department of Public Health, it will be glad to send you one.

KNOWS HIS OR HER SEX

The child of four knows his or her sex, and now, if not before, he needs to learn the necessity for the care of his genitals, to keep them clean and to protect them, never to handle them unnecessarily, and to respect them as a proper part of his beautiful body. If a child *never is given any vulgar ideas associated with sex he will not invent nastiness for himself.*

"HELP MOTHER" AGE

Apart from nature-study lessons, the child of four may learn to count, to dress and undress himself, to put away his toys and clothes properly and to care for pets. He should not yet be given the full responsibility for live pets, as the animals likely will suffer. He will do also many little chores about the house if he is approached in the right manner; never driven nor commanded, but permitted to "help mother".

TWELVE HOURS SLEEP

The diet of a child of four is practically the same as for a child of three, except that he may demand a larger quantity. He still needs twelve hours sleep at night and a nap in the afternoon. The afternoon nap can be continued with very good advantage up until the sixth year.

NO EXCITEMENT



The child is still too young to be taken out at night. He may begin now to go to Sunday school and occasionally to visit little folks his own age. But if he is to remain a perfectly healthy child with a good body and sound nervous system, he needs to go to his own little bed shortly after the evening meal. A child who never is taken out to "movies" or kept up until all hours will go to bed of his own accord at his usual sleepy time.

THE FIFTH BIRTHDAY

With the passing of the fifth birthday and entering upon the sixth year the child again passes into *another stage of development*. He needs this year to be *guarded against over-fatigue*. If allowed to go to kindergarten he must be protected from too long hours in confinement, insanitary school surroundings, bad ventilation or heating, improper seating, and from exposure to contagious diseases. *If confined closely for any length of time in insanitary quarters his resistance to disease is lessened and the chances of his contracting diseases increased*, as is shown by the repeated epidemics among young school children. A child of five should not be permitted to attend school. One who is not strong is better out of school altogether until he is seven or eight. The additional strength gained will more than compensate for the loss of school time, and the child will make up grades easily.

EXAMINATION BY COMPETENT PHYSICIAN IMPORTANT

For this and other reasons it is a wise precaution to have the child thoroughly examined again by your physician and ascertain that his bodily resistance is up to normal before allowing him to enter school at six. It is especially important to note the condition of eyes, ears, nose, throat and teeth, and to correct any irregularities. *It is also a duty resting on the parents to know that the schoolhouse has been put in good sanitary condition before the opening of school*; that the sanitary regulations of the state have been complied with in regard to private drinking cups, good water supply and proper toilets. *An additional safeguard is the school nurse to exclude from school those children suffering from communicable diseases and to give all school children the advantage of skillful oversight as to conditions affecting their health.*

PROPER TEACHER IMPORTANT

During the first few years at school the child is easily influenced. *His will is not strong, and it is hard for him to decide things for himself.* As a result the mother will need to be *on guard* as to *who are his playmates, with whom he goes to and from school*, and to counteract unfortunate influences on his will, ideals and conduct. *She will need*



to talk over with him and refute superstitions and foolish notions of fear of which he will hear tales. She can do this by becoming his companion in his school interests and by making him realize that father and mother are his very best friends. The child will need also the same watchful attention to diet, sleep and play that has been given up to this time.

SHEDS BABY TEETH

About the sixth year the child begins to lose the baby teeth and the permanent teeth make their appearance. If the first teeth are in good condition and cared for the second probably will come through without any special trouble, but it is well to take him to the dentist several times this year to guard against any irregularities.

The most important teeth in childhood are the six-year molars. These two pairs of permanent teeth which come in between six to seven years of age do not take the place of baby teeth but erupt behind the last baby jaw teeth. These molar teeth, which begin their formation before the birth of the child and have been forming during all childhood, will very often have defects in their chewing surfaces when they erupt. Since the six-year molars are the first permanent ones to come through, they act as anchors to which the others tie. If they are lost the others are likely to come in crooked and the dental arch will be poorly formed. As soon as the chewing surface has erupted it should be examined for defects by the dentist.

GRADUATES FROM HOME

At the end of this year the child graduates from the pre-school age to the school age. While he becomes very much more self-reliant, he is still *greatly dependent on mother for supervision*, especially in all matters relating to hygiene. The strain of school needs to be guarded against as well as exposure to communicable disease and other evils attendant upon bringing together large numbers of children from all conditions of home life. Check up on the immunizations given him in childhood to see that he is protected against typhoid, diphtheria, and smallpox. A careful weighing and inspection once each year or oftener by a physician will do much to avoid serious illness or complications and toward keeping the child always in excellent health.

The Georgia Department of Health will be glad to give advice on request on any subject pertaining to prenatal, natal or child care.

TABLE OF WEIGHTS

This table of weights and measures represents the average baby. A baby may weigh more or less and still be entirely normal. The regular increase in weight is of more importance than conforming to a table. It is not reasonable to expect all babies to weigh exactly the same.

At 1 week the normal baby should weigh 7 lbs.

At 2 weeks the normal baby should weigh 7 lbs. 6 oz.

At 3 weeks the normal baby should weigh 7 lbs. 14 oz.

At 4 weeks the normal baby should weigh 8 lbs. 6 oz.

At 5 weeks the normal baby should weigh 8 lbs. to 8 lbs. 14 oz.

At 6 weeks the normal baby should weigh 9 lbs. to 9 lbs. 6 oz.

At 7 weeks the normal baby should weigh 9 lbs. 8 oz. to 9 lbs. 14 oz.

At 8 weeks the normal baby should weigh 9 lbs. 14 oz. to 10 lbs.

At 9 weeks the normal baby should weigh 10 lbs. to 10 lbs. 8 oz.

At 10 weeks the normal baby should weigh 10 lbs. 6 oz. to 10 lbs. 14 oz.

At 11 weeks the normal baby should weigh 10 lbs. 10 oz. to 11 lbs. 4 oz.

At 12 weeks the normal baby should weigh 11 lbs. to 12 lbs.

After the twelfth week the baby should gain on an average of four ounces a week. *Keep a record of baby's weight. (See Page 91)*

RECORD OF BABY'S WEIGHT

Baby's name

Date of birth

	Pounds	Ounces
Weight at birth		
Second day		
Third day		
Fourth day		
Fifth day		
Sixth day		
Seventh day		
End second week		
End third week		
End fourth week		
End fifth week		
End sixth week		
End seventh week		
End eighth week		
End ninth week		
End tenth week		
End eleventh week		
End twelfth week		
End thirteenth week		
End fourteenth week		
End fifteenth week		
End sixteenth week		
End seventeenth week		
End eighteenth week		
End nineteenth week		
End twentieth week		
End twenty-first week		
End twenty-second week		
End twenty-third week		
End twenty-fourth week		
End seventh month		
End eighth month		
End ninth month		
End tenth month		
End eleventh month		
End first year		
End eighteenth month		
End second year		

After the twelfth week the baby should gain on an average of four ounces a week.

AVERAGE HEIGHTS AND WEIGHTS
OF CHILDREN UNDER SIX YEARS OF AGE
COMPILED BY U. S. DEPARTMENT OF LABOR—
CHILDREN'S BUREAU

Table 1.—Average heights and weights of white children from birth to 3 years of age.*

Age	White boys		White girls	
	Average Height (inches)	Average Weight (pounds) †	Average Height (inches)	Average Weight (pounds) †
Under 1 month.....	21 $\frac{1}{8}$	9 $\frac{1}{8}$	20 $\frac{7}{8}$	8 $\frac{5}{8}$
1 month, under 2.....	22 $\frac{1}{2}$	10 $\frac{7}{8}$	21 $\frac{7}{8}$	10 $\frac{1}{8}$
2 months, under 3.....	23 $\frac{3}{8}$	12 $\frac{5}{8}$	23 $\frac{1}{8}$	11 $\frac{3}{4}$
3 months, under 4.....	24 $\frac{1}{2}$	14 $\frac{1}{8}$	24	13
4 months, under 5.....	25 $\frac{3}{8}$	15 $\frac{3}{8}$	24 $\frac{7}{8}$	14 $\frac{1}{4}$
5 months, under 6.....	26 $\frac{1}{8}$	16 $\frac{1}{4}$	25 $\frac{1}{2}$	15 $\frac{3}{8}$
6 months, under 7.....	26 $\frac{3}{4}$	17 $\frac{1}{2}$	26 $\frac{1}{8}$	16 $\frac{1}{4}$
7 months, under 8.....	27 $\frac{1}{4}$	18 $\frac{3}{4}$	26 $\frac{3}{4}$	17 $\frac{1}{8}$
8 months, under 9.....	27 $\frac{3}{4}$	19	27 $\frac{1}{4}$	17 $\frac{3}{4}$
9 months, under 10.....	28 $\frac{1}{4}$	19 $\frac{5}{8}$	27 $\frac{5}{8}$	18 $\frac{1}{2}$
10 months, under 11.....	28 $\frac{5}{8}$	20 $\frac{1}{4}$	28 $\frac{1}{8}$	19
11 months, under 12.....	29	20 $\frac{3}{4}$	28 $\frac{1}{2}$	19 $\frac{1}{2}$
12 months, under 13.....	29 $\frac{1}{2}$	21 $\frac{3}{8}$	28 $\frac{7}{8}$	20
13 months, under 14.....	29 $\frac{7}{8}$	21 $\frac{7}{8}$	29 $\frac{1}{4}$	20 $\frac{1}{2}$
14 months, under 15.....	30 $\frac{1}{4}$	22 $\frac{1}{4}$	29 $\frac{3}{4}$	21
15 months, under 16.....	30 $\frac{5}{8}$	22 $\frac{3}{4}$	30 $\frac{1}{8}$	21 $\frac{3}{8}$
16 months, under 17.....	31	23 $\frac{1}{4}$	30 $\frac{1}{2}$	21 $\frac{7}{8}$
17 months, under 18.....	31 $\frac{3}{8}$	23 $\frac{3}{4}$	30 $\frac{7}{8}$	22 $\frac{3}{8}$
18 months, under 19.....	31 $\frac{3}{4}$	24 $\frac{1}{8}$	31 $\frac{1}{4}$	22 $\frac{3}{4}$
19 months, under 20.....	32 $\frac{1}{8}$	24 $\frac{5}{8}$	31 $\frac{5}{8}$	23 $\frac{1}{4}$
20 months, under 21.....	32 $\frac{1}{2}$	25	31 $\frac{7}{8}$	23 $\frac{5}{8}$
21 months, under 22.....	32 $\frac{3}{4}$	25 $\frac{1}{2}$	32 $\frac{1}{4}$	24 $\frac{1}{8}$
22 months, under 23.....	33	25 $\frac{7}{8}$	32 $\frac{1}{2}$	24 $\frac{1}{2}$
23 months, under 24.....	33 $\frac{3}{8}$	26 $\frac{1}{4}$	32 $\frac{3}{4}$	24 $\frac{3}{4}$
24 months, under 25.....	33 $\frac{5}{8}$	26 $\frac{5}{8}$	33 $\frac{1}{8}$	25 $\frac{1}{8}$
25 months, under 26.....	33 $\frac{7}{8}$	27	33 $\frac{3}{8}$	25 $\frac{1}{2}$
26 months, under 27.....	34 $\frac{1}{8}$	27 $\frac{1}{4}$	33 $\frac{5}{8}$	25 $\frac{7}{8}$
27 months, under 28.....	34 $\frac{3}{8}$	27 $\frac{5}{8}$	34	26 $\frac{1}{4}$
28 months, under 29.....	34 $\frac{3}{4}$	28	34 $\frac{1}{4}$	26 $\frac{3}{4}$
29 months, under 30.....	35	28 $\frac{1}{2}$	34 $\frac{1}{2}$	27 $\frac{1}{8}$
30 months, under 31.....	35 $\frac{1}{4}$	28 $\frac{7}{8}$	34 $\frac{7}{8}$	27 $\frac{1}{2}$
31 months, under 32.....	35 $\frac{1}{2}$	29 $\frac{1}{4}$	35 $\frac{1}{8}$	27 $\frac{7}{8}$
32 months, under 33.....	35 $\frac{3}{4}$	29 $\frac{1}{2}$	35 $\frac{3}{8}$	28 $\frac{1}{4}$
33 months, under 34.....	36	29 $\frac{7}{8}$	35 $\frac{1}{2}$	28 $\frac{1}{2}$
34 months, under 35.....	36 $\frac{1}{4}$	30 $\frac{1}{8}$	35 $\frac{3}{4}$	28 $\frac{7}{8}$
35 months, under 36.....	36 $\frac{1}{2}$	30 $\frac{1}{2}$	36	29 $\frac{1}{4}$

* These figures are based upon measurements of 167,024 white boys and girls for whom no serious defects were reported. The averages as calculated have been smoothed and corrected to allow for the basic figures of children with adenoids, diseased or enlarged tonsils or carious teeth, and they represent, therefore, so far as the material permits, average heights and weights of children without defects.

† Weights do not include clothing.

AVERAGE HEIGHTS AND WEIGHTS OF CHILDREN UNDER SIX YEARS OF AGE

COMPILED BY U. S. DEPARTMENT OF LABOR—
CHILDREN'S BUREAU

Table 1. Average heights and weights of white children from 3 to 6 years of age.*

Age	White boys		White girls	
	Average Height (inches)	Average Weight (pounds) †	Average Height (inches)	Average Weight (pounds) †
36 months, under 37	36 $\frac{5}{8}$	30 $\frac{3}{4}$	36 $\frac{1}{4}$	29 $\frac{1}{2}$
37 months, under 38	36 $\frac{7}{8}$	31	36 $\frac{1}{2}$	29 $\frac{7}{8}$
38 months, under 39	37 $\frac{1}{8}$	31 $\frac{3}{8}$	36 $\frac{3}{4}$	30 $\frac{1}{8}$
39 months, under 40	37 $\frac{3}{8}$	31 $\frac{1}{4}$	37	30 $\frac{1}{2}$
40 months, under 41	37 $\frac{5}{8}$	32	37 $\frac{1}{4}$	30 $\frac{7}{8}$
41 months, under 42	37 $\frac{7}{8}$	32 $\frac{3}{8}$	37 $\frac{1}{2}$	31 $\frac{1}{8}$
42 months, under 43	38 $\frac{1}{8}$	32 $\frac{3}{4}$	37 $\frac{3}{4}$	31 $\frac{1}{2}$
43 months, under 44	38 $\frac{1}{4}$	33 $\frac{1}{8}$	38	31 $\frac{3}{4}$
44 months, under 45	38 $\frac{1}{2}$	33 $\frac{1}{2}$	38 $\frac{1}{8}$	32 $\frac{1}{8}$
45 months, under 46	38 $\frac{3}{4}$	33 $\frac{3}{4}$	38 $\frac{3}{8}$	32 $\frac{3}{8}$
46 months, under 47	39	34	38 $\frac{1}{2}$	32 $\frac{5}{8}$
47 months, under 48	39 $\frac{1}{8}$	34 $\frac{1}{4}$	38 $\frac{3}{4}$	32 $\frac{7}{8}$
48 months, under 49	39 $\frac{1}{4}$	34 $\frac{1}{2}$	38 $\frac{7}{8}$	33 $\frac{1}{8}$
49 months, under 50	39 $\frac{1}{2}$	34 $\frac{3}{4}$	39 $\frac{1}{8}$	33 $\frac{1}{2}$
50 months, under 51	39 $\frac{5}{8}$	35	39 $\frac{1}{4}$	33 $\frac{3}{4}$
51 months, under 52	39 $\frac{7}{8}$	35 $\frac{1}{4}$	39 $\frac{1}{2}$	34
52 months, under 53	40	35 $\frac{1}{2}$	39 $\frac{3}{4}$	34 $\frac{3}{8}$
53 months, under 54	40 $\frac{1}{4}$	35 $\frac{7}{8}$	40	34 $\frac{5}{8}$
54 months, under 55	40 $\frac{1}{2}$	36 $\frac{1}{8}$	40 $\frac{1}{4}$	35
55 months, under 56	40 $\frac{5}{8}$	36 $\frac{1}{2}$	40 $\frac{3}{8}$	35 $\frac{3}{8}$
56 months, under 57	40 $\frac{7}{8}$	36 $\frac{3}{4}$	40 $\frac{5}{8}$	35 $\frac{5}{8}$
57 months, under 58	41 $\frac{1}{8}$	37 $\frac{1}{8}$	40 $\frac{7}{8}$	36
58 months, under 59	41 $\frac{1}{4}$	37 $\frac{1}{2}$	41	36 $\frac{1}{4}$
59 months, under 60	41 $\frac{1}{2}$	37 $\frac{3}{4}$	41 $\frac{1}{4}$	36 $\frac{1}{2}$
60 months, under 61	41 $\frac{5}{8}$	38 $\frac{1}{8}$	41 $\frac{3}{8}$	36 $\frac{7}{8}$
61 months, under 62	41 $\frac{3}{4}$	38 $\frac{3}{8}$	41 $\frac{5}{8}$	37 $\frac{1}{8}$
62 months, under 63	42	38 $\frac{5}{8}$	41 $\frac{3}{4}$	37 $\frac{3}{8}$
63 months, under 64	42 $\frac{1}{8}$	39	41 $\frac{7}{8}$	37 $\frac{3}{4}$
64 months, under 65	42 $\frac{3}{8}$	39 $\frac{1}{4}$	42 $\frac{1}{8}$	38
65 months, under 66	42 $\frac{1}{2}$	39 $\frac{1}{2}$	42 $\frac{1}{4}$	38 $\frac{1}{4}$
66 months, under 67	42 $\frac{3}{4}$	39 $\frac{7}{8}$	42 $\frac{3}{8}$	38 $\frac{5}{8}$
67 months, under 68	43	40 $\frac{1}{4}$	42 $\frac{5}{8}$	39
68 months, under 69	43 $\frac{1}{8}$	40 $\frac{5}{8}$	42 $\frac{7}{8}$	39 $\frac{3}{8}$
69 months, under 70	43 $\frac{3}{8}$	40 $\frac{3}{4}$	43 $\frac{1}{8}$	39 $\frac{3}{4}$
70 months, under 71	43 $\frac{1}{2}$	41 $\frac{1}{4}$	43 $\frac{1}{2}$	40 $\frac{3}{8}$
71 months, under 72	43 $\frac{7}{8}$	41 $\frac{5}{8}$	43 $\frac{5}{8}$	40 $\frac{1}{2}$

* These figures are based upon measurements of 167,024 white boys and girls for whom no serious defects were reported. The averages as calculated have been smoothed and corrected to allow for the basic figures of children with adenoids, diseased or enlarged tonsils or carious teeth, and they represent, therefore, so far as the material permits, average heights and weights of children without defects.

† Weights do not include clothing.

BABY'S RECORD

Baby's name

Born at on the

..... 19 at M., unto Mr. and

Mrs. a

Baby was weighed this day of 19

..... pounds ounces. Height inches

Baby's First Toy First Tooth

First Laugh First Shoes

First Crept First Stood Alone

First Steps First Words

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